THE WORKSTATION NEWSWEEKLY

MacWEEK

$3.50

2 4 | Volume 1 | Oct. 20, 1987

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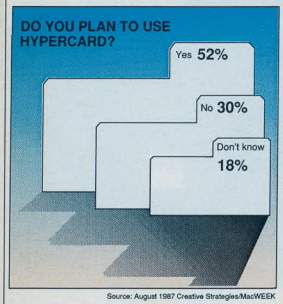


Source: August 1987 Creative Strategies/MacWEEK

Microsoft targets E-mail

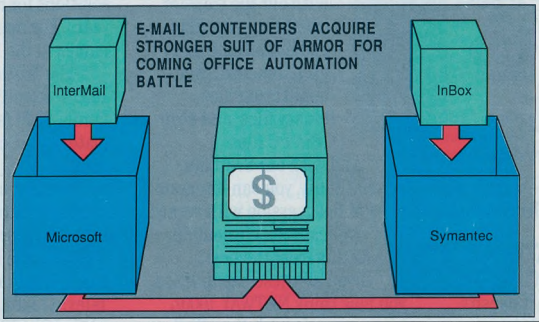
BY EMILY BROWER
MacWEEK Staff

REDMOND, Wash. — Electronic-mail standards are still several years away, but giants Microsoft Corp. and Symantec Corp. have already positioned themselves in the race to get there first.

Microsoft's acquisition last week of InterMail, an E-mail program for the Mac, marks the software powerhouse's entry into the burgeoning office automation market. Think Technologies Inc., developer of InBox, the only other E-mail product for the Mac, merged with Symantec of Cupertino, Calif., earlier this month.

E-mail programs enable computers on a local-area network to send messages and files among themselves. Installing an E-mail system increases office productivity by eliminating

See INTERMAIL, Page 34



Apple gives up on Fallon project

BY JON SWARTZ
MacWEEK Staff

CUPERTINO, Calif. — Apple has ceased development of Acknowledge and Acknowledge Pro, the Macintosh-to-IBM mainframe communications programs Apple developed and targeted at corporate users amid much fanfare this summer.

Bill Brown, Apple's manager of network hardware, said development of the programs, code-named "Fallon," stopped in September.

Like the willowy heroine in the "Dynasty" television series after which the project was named, "Fallon" died prematurely. (Hollywood, however, had a happy ending for the fictional "Fallon" by resurrecting the character as only soap operas can.)

Apple's Fallon wasn't as fortunate.

"Users evidently weren't as interested as Apple thought they would be," said Mike Millikin, senior editor at Patricia Seybold's Office Computing Group in Boston. "Apple may have competed with its own third-party vendors too closely."

Apple users said the programs, which were

See FALLON, Page 34

Lightspeed Color Page Layout

BY ABIGAIL CHRISTOPHER
MacWEEK Staff

BOSTON — Lightspeed Inc. of Boston will announce its Color Page Layout system for the Mac II at the Corporate Electronic Publishing Systems conference to be held here next week.

See LIGHTSPEED, Page 34

MARK ALCAREZ

ROM upgrade to fix Mac II bug

BY ABIGAIL CHRISTOPHER
MacWEEK Staff

CUPERTINO, Calif. — Apple will release an upgrade to the Mac II ROM to correct a bug that prevents the computer from recognizing expansion boards that contain more than 1 Mbyte of memory.

The upgrade will be built into new Mac IIs "as soon as possible," according to an official Apple technical memo, "Designing cards and drivers for the Macintosh II and Macintosh SE," that was sent to developers.

As an interim solution, Apple has helped National Semiconductor of San Jose, Calif., develop RAM disk software that allows the use of the 16-Mbyte board on the Mac II. When the new Mac II ROMs are available, National Semiconductor will ship a new version of the software to users.

"The ROM in the Mac II restricts our use of the Slot Manager," said Jim Cooper, National Semiconductor's chief engineer of Apple products. "The Slot Manager is part of the Toolbox that surveys the NuBus boards in the Mac II's slots and recognizes which boards are being used. We've had to take out a few features that will be added when Apple provides the new Mac II ROMs," he said.

See ROM, Page 34

Apple posts record year on strong final quarter

BY RUSTY WESTON
MacWEEK Staff

CUPERTINO, Calif. — The "repositioning" of Apple as the top company in the microcomputer marketplace is complete and the company has the broken records to prove it.

Anyone who heard of Apple's ascendancy in corporate America might have anticipated record sales this year. Every Wall Street analyst foresaw a sharp rise in revenue, but few guessed that Apple would report revenue of $786.4 million in its fourth quarter ended Sept. 30.

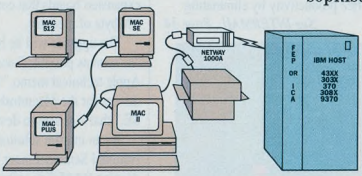
That amount represents a 54 percent increase over the same quarter a year ago, according to figures released by Apple last week. John Sculley, Apple CEO, president and

See APPLE, Page 34

How your Mac family and your 3270 family can be one big happy family.

Your Macintoshes and your mainframe. They have some truly amazing capabilities. Except for one: the ability to easily talk to one another.

But there is a universal solution that unites all your Macs —the 512 KE, the Plus, the SE,



Corporate workgroup using AppleTalk.

and even the Mac II—with your 3270 world. It's Tri-Data's NETWAY 1000A.

This 3270 gateway for your Macs delivers perfect 3274 controller emulation. So it doesn't compromise your SNA or Bisync mainframe environment one bit.

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Given all these capabilities, you may think NETWAY 1000A is an expensive solution. Well, you're in for a pleasant surprise. For a workgroup of 16 Macs, NETWAY 1000A costs less than $200 per active 3278 terminal session.

And if all this sounds too good to be true, here's another pleasant surprise. Tri-Data's NETWAY 1000A has been delivering the best Mac-to-mainframe solutions for more than two years. For many of the biggest names in the Fortune 1000.

The Tri-Data NETWAY 1000A. Exactly what your Mac family, 3270 family, and, ultimately, your corporate family needs.

Contact us about our demo program and connect your Macintosh to your IBM host today. Tri-Data, 505 E. Middlefield Road, Mountain View, CA 94043, Telex: 172282, AppleLink: D0120, (415) 969-3700.

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LATE NEWS

Asher Technologies plans Mac Group III fax unit

ROSWELL, Ga. — Asher Technologies Inc. will introduce an external, portable unit that transforms Macintosh workstations into Group III fax machines at COMDEX/Fall '87, to be held Nov. 2-6 in Las Vegas.

The $695 product, called JT Fax Macintosh, will be shown at COMDEX and should ship by the end of November, an Asher spokesman said. The unit, which is compatible with Group III faxes, attaches to the Mac's printer or modem port, supports Apple's hierarchial file system and ImageWriter II and LaserWriter printers, and will have optional MS-DOS cable connections.

JT Fax Macintosh works with Microsoft Word, Works and Excel, Lotus Development Corp.'s Jazz, and MacWrite, and it interfaces with desktop-publishing programs such as Aldus' PageMaker. In addition, it lets users design a cover sheet in MacDraw, MacDraft, MacPaint and other graphics programs. JT Fax also contains a broadcast mechanism that sends information to preselected sites.

The Asher spokesman said the product works on the Mac 512K, 512KE, Plus, SE and II.

Asher is located at 1 Quad Way, Norcross, Ga. 30093; (404) 564-2353.

Micro D distributors launch dedicated Mac division

SANTA ANA, Calif. — Micro D Inc. of Santa Ana, Calif., is expanding its Mac sales and marketing division effective Nov. 15, Linwood A. Lacy Jr., Micro D chairman and CEO, said last week.

The new Apple/Macintosh division will release its first catalog Jan. 1. The wholesalers, based in Santa Ana, Calif., hope the new division will leverage Mac sales to resellers beyond the current 13 percent of Micro D's total software sales.

"We believe we are already the leading distributor of Apple microcomputer products," Lacy said. "We intend to move from the leading position to a more dominant position in Apple/Macintosh distribution just as we have in the IBM market."

Hal Clark, president and chief operating officer, said Micro D will announce some additions to its list of Mac product vendors within a month. In addition, the company is offering resellers Mac training and product demonstrations at its new Technical Product Division showrooms.

The company announced the new Mac division will be headed by a soon-to-be-named general manager who will report directly to Clark.

Apple sets tape backup standard

40SC compatibility sought

BY JIRI WEISS
MacWEEK Staff

CUPERTINO, Calif. — Apple started shipping its long-delayed 40-Mbyte 40SC tape backup on Sept. 9, but the product is only now becoming widely available, according to Fred Benz, Apple project manager for CPU product marketing.

Production is ramping up, he said. "But availability at outset is not as extensive as we would like."

Despite short supplies, third-party developers already are striving to make their drives compatible with the 40SC.

The new Apple drives use DC-2000 tape cartridges manufactured by 3M Corp. Other tape drives, such as the 40-Mbyte Hypertape from General Computer Corp. of Cambridge, Mass., and Mirror Tape-40 from Mirror Technologies Inc. of Hugo, Minn., use the same cartridges, but the Apple drive will not be able to read tapes produced by the third-party machines because of differences in file format.

"Apple has taken so long to get its drive out that many companies have created their own formats. Now there will be a big push to be compatible with Apple," said David Hill, a design engineer at General Computer. His company is already working on software that will give users the choice of General Computer's file format or Apple's.

Mirror is waiting to get an Apple prototype before starting to work on making its product compatible with Apple's, according to Richard Monseth, Mirror's regional sales manager.

AST Research Inc. of Irvine, Calif., another tape drive manufacturer, said it is looking into producing an Apple-compatible drive.

COURTESY APPLE

Apple's 40-Mbyte 40SC tape backup.

The company originally planned to delay development of its product until there was an Apple standard, but then it decided to develop its own software, according to Mark Lebar, AST's marketing manager.

The goal for companies like General Computer and Mirror is to be able to read cartridges from an Apple drive but not necessarily to write tapes that Apple's drive can read. The reason is that both General Computer and Mirror claim that their tape drives will be twice as fast as Apple's, transferring data at the rate of 2 Mbytes per minute instead of at 1 Mbyte per minute.

"It's downward compatibility," Mirror's Monseth said.

Tallgrass Technologies Corp. of Overland Park, Kan., which last week announced a tape drive for the Mac, the TG4040, said its drive will be able to both read and write Apple tapes.

Apple defends the speed of its drive. "There may be faster standards, but the premium with our drive has been reliability," said Apple's Benz.

Other tape drive makers ignore compatibility questions completely. CMS Enhancements Inc. of Tustin, Calif., for example, offers a Teac drive that uses a tape cassette instead of a cartridge. "What we are are betting on is that we are cheaper, three times as fast and more reliable," said Charles McConathy, CMS' director of marketing and development. ■

Mac Generic CADD to be announced

BY ABIGAIL CHRISTOPHER
MacWEEK Staff

REDMOND, Wash. — Generic Software Inc. will announce a Macintosh version of its $49.95 Generic CADD software for the PC at COMDEX/Fall, Nov. 2 in Las Vegas.

Generic CADD (computer-aided design and drafting) Level 1 for the Macintosh family, also priced at $49.95, is compatible with Apple's MultiFinder multitasking operating system and is "true to the Mac user interface," said Carol Virkelyst, the Redmond, Wash., company's marketing manager.

Ken Goodman, Generic Software's vice president of marketing, said: "Apple has seen our software and they are very interested in it. Mac users will find that many of our software's features are the same as those found in other Mac programs ten times its price."

The company claims the Mac version of the design and drafting program allows the user to edit multiple drawings simultaneously in separate windows and create drawings with a palette of tools. Users can draw objects in up to 256 colors, layers and line types.

Objects created with the software can be moved, copied, erased and broken. Drawings can be rotated at any angle and their scale modified. Grouped together as components, objects can be saved in a library or as a separate file and reused. The program includes a symbol library of drawings and components.

Generic CADD allows the user to work in different units of measure, including feet, inches, fractions, decimal feet, meters, centimeters, arc degrees and angles. Rubber banding and point, grid and tolerance snapping also are supported.

Numerical zoom factors of 1 million to infinity as well as measurements of distance angles and area are provided. Drawings created with either the PC or Mac version of Generic CADD can be imported into the other version.

Level 2 of the program, for two-dimensional design and drafting applications, will be available next March for $99.95. ■

Ashton-Tate ann
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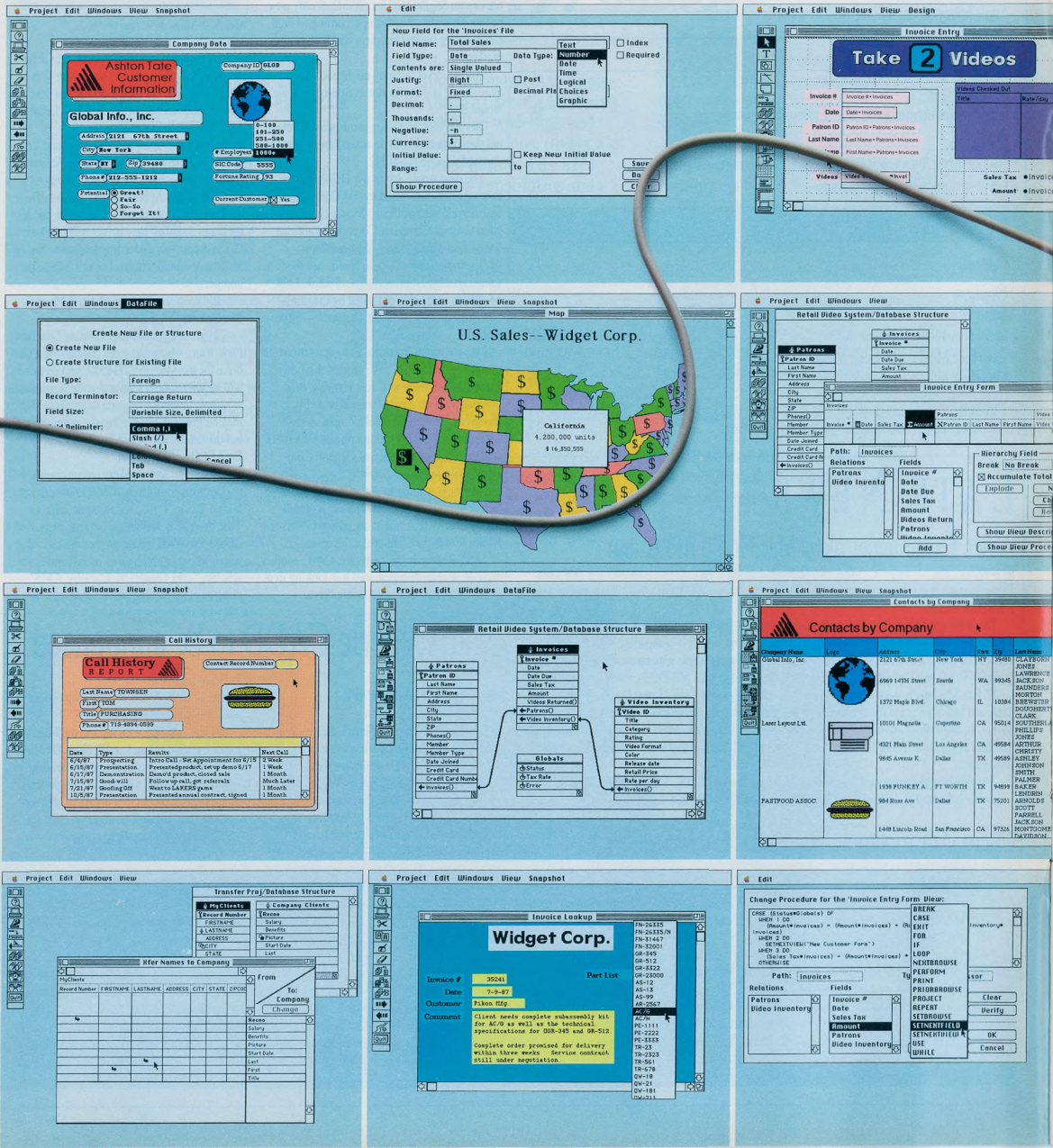

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Volvo workers nix Apple contract

Swedish autoworkers demand European vendor

BY JON SWARTZ
MacWEEK Staff

GOTHENBERG, Sweden — AB Volvo averted a crippling autoworkers strike last month when it bypassed Apple in favor of Ing. C. Olivetti SPA for a multimillion-dollar computer contract.

Union autoworkers at Volvo threatened to strike if the three-year, $40 million personal computer contract went to Apple instead of an Olivetti-led consortium that included LM Ericsson Telephone Co. of Stockholm, Sweden.

Citing nationalism, approximately 5,000 members of the plant's bus and truck division said they would strike if Olivetti of Milan, Italy, didn't receive the PC contract.

But sources say several managers at Volvo insisted on using Macintosh II workstations.

The four-month impasse was resolved when Volvo chose Olivetti's bid while ordering a handful of Mac IIs for the managers who supported Apple equipment, sources said.

Volvo is revamping factory automation networks at its bus and truck division here to replace an Ericsson IBM-compatible 3278 terminal network linking factories, administrative offices and dealers.

Olivetti is supplying 20,000 to 30,000 IBM PC- and AT-compatible units linked to at least five IBM mainframes at Europe's largest IBM computer installation.

Meanwhile, a separate three-year, $10 million contract for local-area network (LAN) software and hardware was awarded in April to Fox Research Inc. of Dayton, Ohio, for its 10-Net baseband twisted-pair LAN.

The Volvo workers, however, were not upset with the selection of Fox because Fox has many European installations and marketing alliances.

"The autoworkers were adamant that a European vendor handle the PCs," said Flemming Ostergaard, president of The PolyData Group, the Copenhagen, Denmark, reseller of Fox products. "But there were some Apple fans at Volvo who insisted on Macs."

Volvo and Apple officials refused to comment.

Volvo had tested network operating system software from 3Com Corp. of Mountain View, Calif., and Novell Inc. of Provo, Utah, before choosing 10-Net.

A Fox spokeswoman said Volvo will purchase 1,100 LANs.

IBM, overlooked for both the PC and networking contracts, will supply System/38 computers for the new network. ■

Mac E-mail system from Western Union

BY EMILY BROWER
MacWEEK Staff

UPPER SADDLE RIVER, N.J. — Western Union Corp. has unveiled plans to release a Macintosh version of its integrated communications package, called Instant Mail Manager.

Instant Mail Manager handles the transfer of binary files, or formatted documents, over EasyLink, Western Union's electronic mail service. Mailgrams, telegrams, telexes and other EasyLink messages can be sent using IMM.

The program was originally developed by Kensington Microware of New York City to connect PCs with EasyLink and facilitate transfer of formatted documents over the network. EasyLink, which handles almost 40 percent of the E-mail traffic in the United States, dominates the domestic E-mail market.

Some analysts are skeptical about the significance of Western Union's involvement in the Mac market. Recent financial troubles have cast a shadow over the company's health, and although the E-mail segment of Western Union's business is thriving, it accounts for only 7 percent of total revenues. However, Peter Hirshberg, product manager of desktop communications at Apple, said providing links between the Mac and other machines can only be good for the market. ■

HP delays release of gray-scale scanner until February

GREELEY, Colo. — Hewlett-Packard Co. has delayed release of the Mac version of its ScanJet gray-scale scanner until February, citing the need for further testing.

Recently, however, Hewlett-Packard listed the scanner as ready to ship in a house-product magazine.

The 16-level gray-scale, flatbed scanner already works with IBM and Hewlett-Packard computers. It would connect to a Mac via a SCSI adapter and Mac interface software.

"It will be available for shipment in February," said Liz Shoeman, a spokeswoman for Hewlett-Packard's Greeley Hardcopy Operation. "We feel we want to take the extra time to make sure that any known problems have been resolved."

Shoeman said Hewlett-Packard hasn't issued a statement indicating whether the delay is attributed to software or hardware.

But, Shoeman said, "We need to implement all the features and take the time to test it and make sure no problems are there."

The HP9190A is rated at 75- to 300-dpi resolution. It retails for $1,495, with an additional $595 for the Mac interface, including a SCSI cable and software. ■

Apple targets home business market

BY RUSTY WESTON
MacWEEK Staff

CUPERTINO, Calif. — In the age of work-at-home entrepreneurs, Apple is poised to become the home computer of choice.

As part of a new campaign, Apple's first television commercials showing the Macintosh in a home will air this fall.

"The home business market is a big, new market for us," said Bill Larson, Apple's group manager of consumer marketing.

Ironically, Apple already outsells its competition in the home market it previously has pursued without fanfare. Larson said: "We didn't want to undermine Apple's success in the business market, which is critical to Apple's [overall] success. But fiscal '88 will be our year of experimentation with the personal office umbrella."

Apple also is looking to reach home workers in shopping malls in more than 35 cities this week with its second annual Open House touring show.

During each three-day show, kiosks will run a 20-minute videotape tailored to the first-time buyer, offering testimonials from 25 desktop publishers, education software users, home consumers, small-business owners and artists.

The potential of the home market is mind-boggling to a marketing executive. Twenty-three million Americans work at home in 16 million households, according to the Internal Revenue Service.

According to Apple, only 25 percent of those households own computers.

Each month, 30,000 new businesses are launched in the United States, with the majority centered at home, according to statistics from the U.S. Department of Labor.

Furthermore, these home businesses spend an average of $4,777 to equip their home offices.

Home executives are twice as likely as the general population to buy a computer and they spend 50 percent more on peripherals and software than other users, according to Apple.

"The reality of the home PC market is that the computer is used more for working at home than it is for recipes," said securities analyst Mike Orsak of Robertson, Colman & Stephens, a San Francisco investment bank.

"Apple is right in targeting this market; they aren't trying to sell to a market that doesn't exist," he said.

Apple also is taking steps to provide user support for this burgeoning class of home users, according to Larson.

"I think you'll see us making announcements about distributed support for home workers and consumer business," he said. "That is an issue and we're actively working on a solution." ■

MacWEEK

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MacWEEK (ISSN 0892-8118) is published weekly, except for two weeks at year-end, by MacWEEK Inc. 525 Brannan St., San Francisco, Calif. 94107, a subsidiary of Patch Communications, 5211 S. Washington Ave., Titusville, Fla. 32780. Single copy price including postage: $5. One-year subscription rates: U.S. $75, Canada/Mexico U.S $150, International: U.S $300 (airmail). All orders must be prepaid. Subscription inquiries should be directed to the Circulation Department, 5211 S. Washington Ave., Titusville, Fla. 32780, or call (305) 269-2687. Application to mail at second-class postage rates is pending at San Francisco, Calif., and additional mailing offices.

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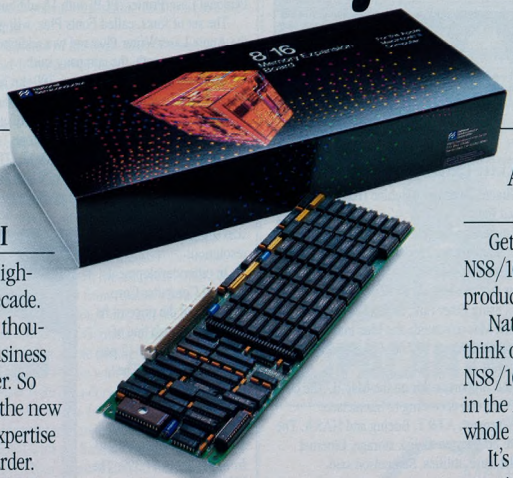
BPA membership applied for April 1987.

National Semiconductor

We were ready for the Mac II almost before they were.



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National has been providing high-level add-in products for over a decade. We've helped well over a hundred thousand multi-tasking, multi-user business environments run faster and better. So even before Apple was ready with the new Mac™ II, we were ready with the expertise and technology to help it work harder.

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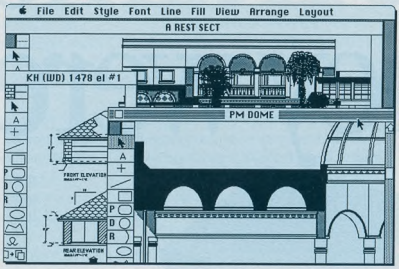
SNAPSHOTS

MacDraft upgraded to full compatibility with Mac II

CONCORD, Calif. — Innovative Data Design has announced MacDraft 1.2b, an upgrade that makes the product fully compatible with the Macintosh II.

"We had received a few complaints concerning text handling in the Mac II, and we wanted full compatibility," said Paul King, president of Innovative Data Design.

MacDraft's object-oriented approach to design and drafting is a unique departure from conventional PC-based CAD software.



Owners who registered after July 1, 1987, can receive an upgrade to the new version at no additional charge. Owners who registered before July 1 can upgrade for $25.

Innovative Data Design is located at 2280 Bates Ave., Suite A, Concord, Calif. 94520; (415) 680-6818.

FreeForm allows access to Intelligent Database Machine

HOUSTON — Mac users can access the powerful Intelligent Database Machine (IDM) by Britton Lee Inc. with FreeForm software by Products Diversified Inc.

A Mac user can retrieve a record out of a 4-Gbyte database in less than a second with an IDM link, according to Dale A. Samuelson, customer support manager for Products Diversified, a value-added reseller for Britton Lee of Los Gatos, Calif., and Apple.

The IDM is a dedicated relational database processor that can host up to 128 network connections, providing simultaneous access for up to 400 Macs using EtherTalk, Samuelson said.

The copy-protected FreeForm software resides in each Mac to provide the Mac interface. Products Diversified's smallest site license is for five Macs and costs $5,500. FreeForm will ship at the end of this month, he said.

Freeform requires a Mac with 1 Mbyte of memory and supports color on the Mac II. The company plans to provide AppleTalk support by the end of the year, according to Samuelson.

He said the biggest users of IDM are the federal government, AT&T, Boeing and NASA. The smallest configuration of the IDM is the BL300-20, with 80 Mbytes of disk storage, Ethernet access and a cartridge-tape subsystem for backup and database utilities, Samuelson said.

The IDM sells for approximately $30,000.

"IDM is the only computer that allows data-sharing betweeen multiple computer types," said Eugene C. Platt, president of Products Diversified.

The company sells 22 different computer interfaces.

Products Diversified Inc. is located at 9720 Beechnut St., Suite 406, Houston, Texas 77036; (713) 771-8357.

Attach any number of Colby monitors to a single Mac

FRESNO, Calif. — Colby Systems Corp. has developed a 12-inch monitor for the Mac 128K, 512K, Plus and SE that allows users to hook up as many monitors to one Mac as they need.

The BigTop's resolution of 512 by 342 pixels exactly matches the Mac monitor, said Charles Colby, company president. The extra size and the ability to connect multiple monitors to a single Mac make the screen useful in training situations.

The monitor is also useful as a Clipboard with other large screen monitors and is good for people with impaired vision, he said.

The monitor is $299; the adapter board costs $99.

The adapter plugs directly into the Mac motherboard and, according to Colby, full installation takes about five minutes after opening the box.

The board plugs from the power supply to the motherboard. A coaxial video cable runs from the video card through the security port.

A fan that uses direct current and is attached to the Mac with Velcro comes with each board, although the fan is not needed with the SE.

Because the fan uses direct current, it does not affect the Mac's picture, and the Velcro fastening acts as a buffer to vibration and noise, according to the company.

Colby Systems Corp. is located at 4723 N. Warren Ave., Fresno, Calif. 93705; (209) 222-4985.

Inset Systems' HiJaak converts incompatible graphics formats

DANBURY, Conn. — Inset Systems Inc. has released HiJaak, a graphics conversion and capture utility that can merge usually incompatible graphics files with other software applications.

HiJaak will convert graphics files created on a Macintosh or Commodore Amiga into an IBM PC-compatible format. HiJaak also allows information to be shared among different graphics packages and computers.

HiJaak is composed of two separate modules. One converts graphics file formats with full resolution; the other captures data from the screen or from Hewlett-Packard LaserJet output for images larger than the screen. HiJaak's "Convert" facility provides 66 file-transaction paths for file formats: Amiga, CompuServe GIF, HP LaserJet images, Lotus PIC, MacPaint, PC Paintbrush, PostScript and Scanner TIFF. These file formats also can be merged into word-processing application programs using the InSet program. HiJaak retails for $89 as a stand-alone product and is available as a package with InSet 2.1 for $149.

Inset Systems also has released the first volume of an eventual series of symbol libraries. The symbols include generic icons, drop capital letters and Greek symbols. The library sells for $30.

Inset Systems is located at 12 Mill Plain Road, Danbury, Conn. 06811; (203) 794-0396.

GCC offers more fonts for PLP; lowers hard disk prices

CAMBRIDGE, Mass. — General Computer Corp. has boosted the size of the type library for its Personal LaserPrinter (PLP) with 16 additional fonts.

The set of fonts, called Fonts Plus, will give PLP owners versions of all the fonts contained in the Apple LaserWriter Plus and two additional headline fonts. Fonts Plus is priced at $299 and will ship this month, the company said.

The Personal LaserPrinter is a 300-dpi laser printer that uses Apple's QuickDraw graphics language as the page-description language rather than Adobe's PostScript.

The basic PLP comes with versions of all the fonts available in the LaserWriter, including Zapf Calligraphic and Swiss Narrow fonts (versions of Palatino and Helvetica narrow).

Fonts Plus includes ITC Avant Garde, ITC Bookman, Century Schoolbook, ITC Zapf Dingbats and the headline fonts Futura Extra Black and Cooper Black. All PLP fonts are mathematically defined outline fonts developed by Bitstream Inc. Individual characters of the outline fonts may be scaled and rotated to any size and angle at 300-dpi resolution.

In other developments, General Computer Corp. has reduced the price of its entire Macintosh line of hard-disk drives by 12 percent to 22 percent. The FX/20, an external 20-Mbyte hard-disk drive, has dropped from $1,199 to $999; the 40-Mbyte FX/40 from $1,799 to $1,399. The FI/40, an internal drive for the Macintosh SE, has dropped from $1,599 to $1,399. The recently announced Macintosh II version of the FI/40 will ship by the end of the month for $1,199, a $200 reduction from the original price.

General Computer Corp. is located at 215 First St., Cambridge, Mass. 02142; (617) 890-8080.

PAUL MORRELL

PowerMAX keeps data safe from power failure

SAN RAFAEL, Calif. — Panamax Inc. now offers protection against power failures with the release of its PowerMAX line of backup power systems. PowerMAX protects against electrical failures, brownouts, surges, interference and overvoltage by switching the power source from AC to internal battery power. The switch typically occurs within 2 milliseconds, the company said.

PowerMAX is intended to prevent data loss and equipment damage when power fails. The user can then shut down the system or continue to work for up to 80 minutes. An alarm informs the user when the system is nearing exhaustion.The product is available in three units, the 450VA with a 300-watt capacity, the 800VA with a 600-watt capacity and the 1200 VA capable of handling a 1,000-watt load. They retail at $599, $1,099 and $1,399, respectively. All the units are U/L and CSA approved.

Panamax is located at 150 Mitchell Blvd., San Rafael, Calif. 94903; (415) 499-3900.

Read-It! makes entering text easier

BY JIRI WEISS
MacWEEK Staff

SOUTH MIAMI, Fla. — Although it may be faster to key in the occasional letter or article than to use a scanner and optical character recognition (OCR) software, a package just out from Olduvai Software Inc. promises to make the task of entering large volumes of printed data much easier.

The $299 Read-It! is able to recognize a wide variety of scanned typefaces, even typeset fonts, with an average accuracy of up to 99.5 percent, according to Juan G. Chotsourian, the company's president.

Users can teach Read-It! to read fonts — including foreign languages and mathematical notation — not included among the approximately 40 predefined type tables shipped with the program. Users teach the program an unknown font letter by letter from a printed page. When the program cannot read a letter it prompts the user to define it.

Read-It! recognizes the scanned letter by comparing its image to a bit map and other descriptive features of the character stored in a look-up table rather than merely checking such things as leading, height and character curvature, Chotsourian said.

The program will store a bit map of different-looking instances of a particular letter to improve recognition, Chotsourian said. "An 'e' or an 'a' requires about five to 10 entries for each character, while an 'f,' which is hard to mistake, usually requires only one," he said.

Existing look-up tables can be customized in a half-hour to an hour, Chotsourian said. The look-up tables allow for variations in size in the scanned font. A 12-point type table will read type 9 to 48 points in size with some training, Chotsourian said. "The program enlarges or shrinks characters automatically to the same size," he said.

Read-It! will handle ligatures, letter combinations such as "ti" and "li" that sometimes touch in proportionally spaced fonts, Chotsourian said. "The limitation is when more than two letters are touching each other," he said.

It took David Schargel, a New York-based Mac consultant, two to three hours to teach the program to read a dot-matrix text. "It will always be faster to have a secretary type in a single page of text than to scan it," he said.

The program is "for automated processing, such as reading in a whole manual, not casual processing. Once you have a good type table, it works well," Schargel said.

Jim Powell, production supervisor of Great Western Directories Inc. of Amarillo, Texas, a publisher of telephone directories, said he has used Read-It! to scan in hundreds of pages of names and phone numbers from telephone directories and computer printouts. Great Western, a beta tester for Read-It!, has decided to scan in files rather than write software to convert typesetting files to a readable format.

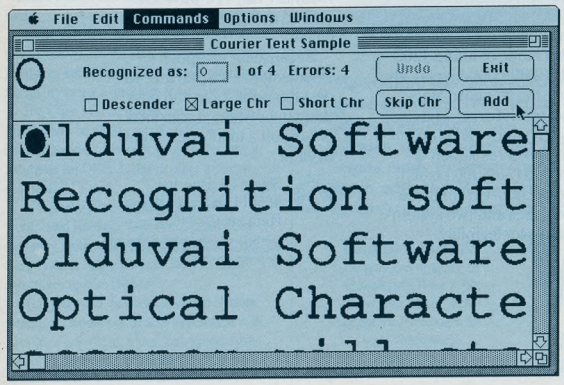
Because of the large sizes of scanned files, Read-It! requires a Mac with at least 1 Mbyte of RAM. But for best results, users will need 2 Mbytes or more, Chotsourian said. Read-It! takes two to three minutes to process a double-spaced page of text; and about 25 seconds on the Mac II, he said. Read-It! will work in the background with Apple's MultiFinder.

The package can read TIFF, compressed TIFF, PICT and bit-mapped images, the company said. Read-It! will work with most 300-dpi scanners, including the AST Turboscan from AST Research Inc. of Irvine, Calif.; the Abaton Scan 300 from Abaton Technology Corp. of Pleasanton, Calif; and the MS-300 from Microtek of Gardena, Calif.

A version of the package called Read-It! TF, tailored for use with the ThunderScan scanner from Thunderware Inc. of Orinda, Calif., is available for $149.

Customized versions of Read-It! will be bundled with the Image Scanner from LoDOWN of Scotts Valley, Calif., and Mac Scan from New Image Technology Inc. of Seabrook, Md., Chotsourian said.

Olduvai Software is located at 7520 Red Road, Suite A, South Miami, Fla. 33143; (305) 665-4665. ■



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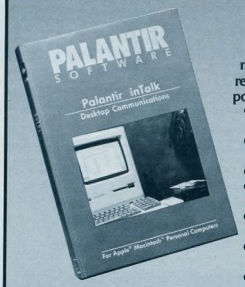

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Newspaper system coming to Mac II

BY JIRI WEISS
MacWEEK Staff

SACRAMENTO, Calif. — A professional newspaper system is being developed for the Mac II by a company that provides minicomputer-based systems for 200 newspapers worldwide, including The Wall Street Journal and The Los Angeles Times.

The Realm system from Publishing Empire, a division of System Integrators Inc. of Sacramento, Calif., includes a word processor, a spreadsheet, a page-layout program, software for creating and editing fonts and logos, and a graphics design and halftone image-processing program.

Realm runs on the company's proprietary multitasking operating system, called RING. To use Realm, Macintosh users will have to quit their Mac applications and reboot in RING, according to the company. Files can be transferred between the two systems only as ASCII files through a modem.

Publishing Empire took the unusual step of writing its own operating system three years ago because there was no good alternative, said Terry Rooker, a senior technical writer with RING research and development. "The choices were DOS and UNIX, and the UNIX file system is too fragile for the system integrity and fault tolerance we wanted," he said.

"They are presenting it as a turnkey solution for people who are dissatisfied with current desktop-publishing solutions [and] who need something with more industrial strength," said Craig Cline, Seybold Publications Inc.'s associate editor of the Seybold Report on Desktop Publishing Systems and the Seybold Report on Desktop Publishing in Malibu, Calif.

RING will automatically run a program on any free processor on the network when the user's processor is busy. Users can share peripherals and get directories of the files on the whole system. RING has its own raster image processor, called Kitchen, that uses the same description language for both the screen and printed page, giving users similar WYSIWYG results as those offered by Display PostScript, recently announced by Adobe Systems Inc. and NeXT Inc., Rooker said.

Cline gave the company high marks for paving the way to the kind of functionality all local-area networks (LANs) should offer, like the ability to get a directory from any system.

But Cline said he doubts that Publishing Empire will be able to establish RING as another standard. "It's not going to become a substitute for OS/2, LANs or other industry standards," he said.

"Proprietary has become a pejorative word," said Rooker. "DEC has a proprietary operating system. IBM has a proprietary operating system. Apple has one. New solutions sometimes require change."

Ten years ago, Seybold predicted System Integrators would not be able to compete with Atex Inc., a Bedford, Mass., newspaper system publisher, according to Rooker. But the Seybold analysts "are not always right," he said.

Realm will be easier to use than the parent company's minicomputer-based system because it includes many Macintosh interface features such as windows and pull-down menus, said Rooker.

Currently, Realm runs on Publishing Empire's own proprietary 68020 microprocessor-based workstation, the CX, but starting next year, the package will run unmodified not only on the Mac II but also on the IBM PS/2 and Compaq 80386-based systems.

Because all workstations run RING, users can mix and match different computers on a network with at least 4 Mbits-per-second file access speed, Rooker said.

Realm will use AppleTalk cabling, but the network will not use Apple networking protocols, he said.

Realm may not be as capable as its parent company's Tandem minicomputer-based $750,000 systems, but it provides a low-cost, easy-to-maintain solution for small operations, said Bill Blakeman, general manager.

Users will be able to output to 300-dpi laser printers or to the company's Ultre film recorder at 600 dpi, Rooker said.

Realm is scheduled to ship in the first quarter of 1988 and will be available on a site license basis for $1,200. The RING operating system will cost an additional $1,200, according to the company.

Publishing Empire can be contacted at P.O. Box 13250, Sacramento, Calif. 95813; (916) 646-1111. ■

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Apple to introduce software for TCP/IP market

BY JON SWARTZ
MacWEEK Staff

CUPERTINO, Calif. — The ABCs of Transmission Control Protocol/Internet Protocol, or TCP/IP, may have prompted alphabet angst among telecommunications managers for years, but the recent entry of Apple and other vendors into the market spells good news for the increasingly popular protocol.

Apple plans to enter the TCP/IP market with a software package at the 2nd TCP/IP Interoperability Conference in Arlington, Va., Dec. 1-4. More than 1,000 users are scheduled to attend the show, making it the largest TCP/IP conference.

"TCP/IP is here to stay," said Daniel Lynch, conference organizer and president of Advanced Computing Environments, a Cupertino, Calif.-based consulting firm specializing in multivendor networking. "Every major vendor is jumping on the bandwagon."

TCP/IP, a set of networking protocols that links computers from multiple vendors, was developed at Stanford University in Palo Alto, Calif., in 1974 as part of the UNIX operating system and has been adopted as a networking standard in government, academic and technical computing environments.

The Department of Defense, Stanford, Carnegie-Mellon University in Pittsburgh, and the University of Michigan in Ann Arbor, Mich., all have used in-house versions of the protocol for several years. Currently, there are more than 50 vendors nationwide that make TCP/IP-related products, amounting to a multimillion-dollar industry.

"Obviously, Apple is always interested in expanding the higher education market," said Janet Tornow, Apple university marketing director. "However, to talk about TCP/IP software now would be premature."

But sources at Apple admit the company is scrambling to develop TCP/IP software in time to coincide with the December trade show.

"To make a major announcement at such a big show would really create a splash for Apple in the TCP/IP market," said Jan Lewis, president of Jan Lewis Research in Sunnyvale, Calif. "The market is teeming with college and government accounts."

IBM, TOPS, A Sun Microsystems Co. (formerly Centram Systems West) of Berkeley, Calif., and Excelan Inc., a San Jose, Calif., TCP/IP maker, already have either released TCP/IP products or merged with companies that make TCP/IP products.

In August, TOPS introduced a software package, TOPS Terminal, that lets Macintoshes communicate with computers on TCP/IP-based networks. Later that month, Excelan announced its merger with Kinetics Inc., a Walnut Creek, Calif., manufacturer of Mac- and AppleTalk-related networking products.

Last year, IBM introduced TCP/IP connections to its 9370 line of super-minicomputers.

"We think the [Excelan-Kinetics] merger is the beginning of a trend," said Steve Spanier, Excelan's technical marketing manager. Spanier and others, like TOPS President and CEO Nat Goldhaber, say TCP/IP software on Macs brings the Mac into mainstream computing, or "heterogeneous," environments and gives TCP/IP users a powerful office productivity tool in the Mac.

Kinetics, which released FastPath, the first Ethernet package for the Mac, two years ago will combine technology with Excelan to seize major corporate network accounts, according to Steve Nelson, Kinetics marketing director.

"There is a lot of interest among universities for something like this," Nelson said, referring to the FastPath Ethernet package that now will be linked to TCP/IP. "Users will be able to connect their Apple computers to anything up to a Cray."

Despite its success, TCP/IP is not used by banks and other commercial companies. Lynch said MIS directors have been nursed on IBM's Systems Network Architecture, which is incompatible with TCP/IP, and they are hesitant to try anything else. "Chalk it up to IBM's superlative marketing," he said.

Mike Eldridge, communications director at Pacific Valley Bank in San Jose, Calif., said he hasn't heard of TCP/IP but is interested. "Most banks do not do a lot of extensive networking," he said. "Maybe now that IBM has entered the market, bank communications directors will hear about it."

Although some universities, including Stanford, have developed their own implementations of TCP/IP, enough universities, government agencies and CAD/CAM companies are interested in the protocol to make it lucrative.

MICHAEL JAY

Daniel Lynch: "TCP/IP is here to stay."

"TCP/IP is a dream," said Dave Preston, marketing director at TCP/IP pioneer The Wollongong Group in Los Gatos, Calif. "TCP/IP can run on DECnet, VAX/VMS, MS-DOS and AT&T 3B, and it is a de facto government standard widely used by universities and manufacturers. It gives users an ability to mix and match the best of different vendors' equipment."

Since most users buy networking products from more than one vendor, Preston said, they have begun telling IBM, "We're not going to buy IBM products unless you offer TCP/IP." ■

Release of MacWorkstation confirmed

BY JON SWARTZ
MacWEEK Staff

CUPERTINO, Calif. — MacWorkstation, an Apple software program for mainframe applications in corporate MIS departments, will be released Jan. 1, Apple officials said last week.

The software program, currently in beta testing, is being marketed to MIS directors with little Macintosh programming experience, said Peter Hirshberg, manager of Apple's desktop communications and large systems group.

"This encourages people to develop skills on the Mac," Hirshberg said. "We're trying to give corporate departments an incentive to build a Mac interface."

Hirshberg said MacWorkstation allows a Mac to be used as a front end to a host computer while maintaining its graphical interface.

MacWorkstation resides on the Mac and can work with any host computer, such as those from IBM Corp. and Digital Equipment Corp., using a customized mainframe application, according to Norman Kline, MacWorkstation product manager.

The product will support six modules — AppleTalk, IBM's 3270 terminal, the Transmission Control Protocol/Internet Protocol, RS-232, Tandem Computer Inc.'s 6530 and the Communications Connection Language, Apple's new scripting language used to log on to host computers using AppleLink.

MacWorkstation, originally developed for use in Apple's MIS department in 1985, reportedly will be sold only through Apple. Site licenses will be available for $2,500 for users and $5,000 for third-party developers.

Apple's announcement was overdue, said Peter Teige, PC analyst at Dataquest of San Jose, Calif. "A lot of people expected the program to be introduced at Mac Expo," he said.

Last year, Apple pulled MacWorkstation from the market in order to prepare it for general release, according to Kline.

MacWorkstation will compete with Systems Applications Architecture, an interface standard being developed by IBM that would link all its mainframe-to-PC applications, Kline said.

John DuBois, senior technical adviser for Seafirst Bank, said the Seattle-based bank intends to use MacWorkstation for applications requiring significant user interaction.

DuBois said Seafirst would use MacWorkstation primarily for electronic mail.

Oracle Corp. of Belmont, Calif., has obtained MacWorkstation for product development but refused to divulge product plans. ■

Informix brings SQL to Mac II

BY JIRI WEISS
MacWEEK Staff

MENLO PARK, Calif. — Informix Software Inc. will become the first company to offer Macintosh relational database products that use Structured Query Language (SQL).

SQL is an emerging standard for relational databases, especially in the government and education markets.

The Menlo Park, Calif., company plans to offer Mac versions of all of its SQL products now available under the UNIX, VMS, MVS and MS-DOS operating systems. The new software will run under AU/X on a Mac II.

The products include the $1,600 INFORMIX-SQL, an SQL database and report writer; the $2,400 INFORMIX-4GL, a database development environment capable of developing pop-up menu displays, forms and reports; and the $1,200 INFORMIX-ESQL/C, a tool that allows programmers to incorporate database commands into programs written in C. All the products will ship as soon as Apple releases AU/X, according to Informix.

The original Informix products are designed to work in a networked environment as, for example, front ends to large mainframe databases. But the initial releases for the Mac will work only as a stand-alone programs, according to George Billman, Informix business marketing manager. Support for networking protocols such as TCP/IP will be added later. "We are only a couple of steps away from providing networking connections," he said.

Informix is working hard to be the user interface and set of tools to get into other databases, according to Paul Cubbage, software industry service associate director for Dataquest, a market research firm in San Jose, Calif. "The market must be telling them that they want products on a Mac," he said.

Cubbage said he expects to see the Mac-based products mainly in the university and engineering markets. "But they will make Apple easier to live with in corporations. The effect on Apple is nothing immediate or huge. It is one more stone in the structure you build in becoming a significant vendor," he said.

Oracle Corp. of Belmont, Calif., another SQL database publisher, reportedly also has Mac versions of its products in the works.

"We are not ready to make any product announcements," said Eugene Sklar, Oracle's director of marketing for the PC. "There may be one later this year or in two years. We recognize the Mac is becoming more popular in corporate America and we are feeling pressure."

Informix Software Inc. is located at 4100 Bohannon Dr., Menlo Park, Calif. 94025; (415) 322-4571. ■

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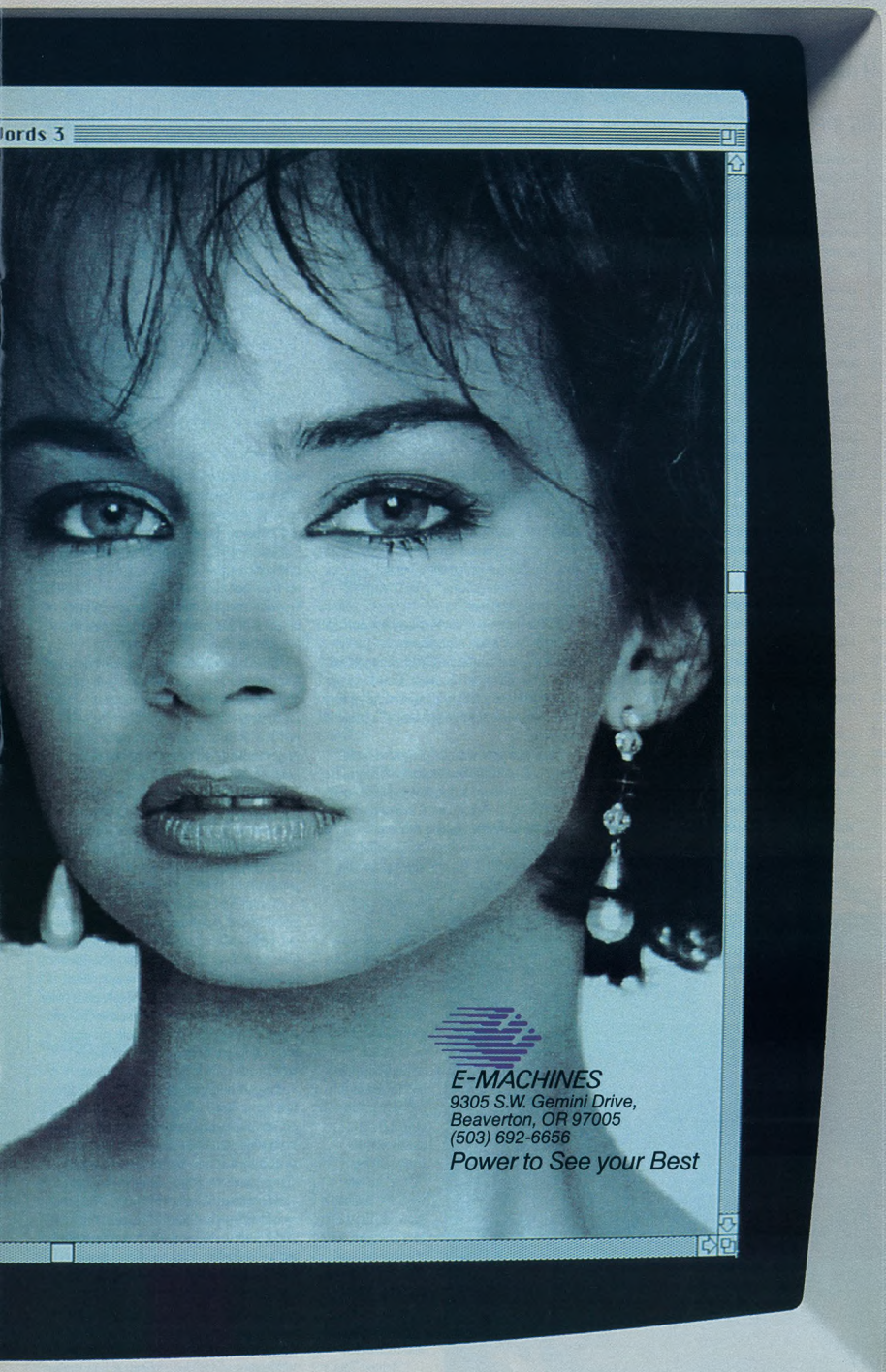
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Mac programming market booms

Young companies meet demand for programmers

BY ELINOR CRAIG
MacWEEK Staff

The boom is on. Because of a shortage of experienced Mac programmers there is a bull market for Mac programming companies. Two young companies are typical representatives of this trend. Nuvo Labs in San Luis Obispo, Calif., and Bear River Associates in Berkeley, Calif., are quickly creating a name for themselves as crack programmers for the Mac.

Tucked behind San Luis Obispo near the base of the Cuesta Grade incline, Nuvo Labs was founded by Dave Nelson, now company president. "When we started, we planned to publish our products as well. But for us the market has proven that programming is where the money is," he said.

However, gaining respect from the programming community did not happen over night. Nelson, who can match technical skills with any of his programmers, has learned the hard way.

"Mac programming is unlike anything else. It is hard to get good programmers. And when you do, it takes a minimum of one month, seven days a week, to get a top-notch programmer up to speed," he said. Last year Nuvo's workload was only one quarter of what it is today.

What software developing companies such as Nuvo Labs can offer is managing the programmers. That is the hard part, according to Nelson. But he has his pool of dependable people and a flexible personality. "Bizarre or not, I can talk to them. Most are hackers, and once they get it up and working, they don't know where to go," he said. That is when Nelson steps in.

At the same time Nuvo Labs was starting up, two other programmers who became enchanted with the "elegance and fun" of the Mac started a similar venture. Founded by Tony Meadow and David Richey, Bear River Associates receives requests for four times the amount of work they can possibly handle, according to Meadow.

At first, Bear River put out a shareware program, Font Library, that attracted many users and established its reputation as a company that could put out a bug-free product. Recently, Bear River has produced Publish Pac — an application that lets the user scan in photos, line art or text — for DEST Corp. of Milpitas, Calif.

Although Bear River has not spent one penny on advertising, its business has steadily increased. Word of mouth travels fast in the Mac community.

"At first the IBM was the exciting machine; the Mac was too cute," said Meadow. But he and Richey concentrated on the Macintosh and when the business community took to Macs, dependable Mac programming became a hot commodity.

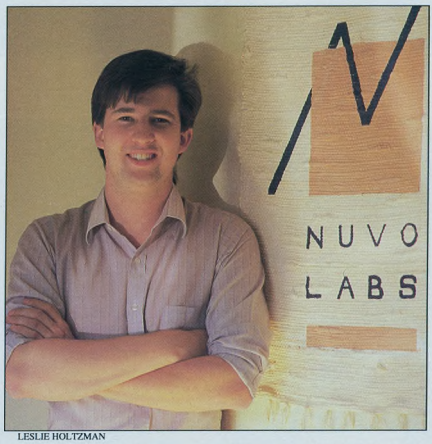
The consensus among programmers is that it is more difficult to write programs for the Macintosh.

"The work is harder," said Richey. "It is harder to do any given task, and the user expects more from any given program."

But programming prowess on the Mac translates into dollars. Bear River's staff has grown from two programmers to five and will shortly increase to seven. Its market hegemony is due to a considerable investment in time.

The same is true for Nuvo Labs. Nelson was the only programmer three years ago. Now he has eight working for him full time.

Another factor feeding the demand for Mac programmers is the PC market's move toward a more Mac-like interface.



LESLIE HOLTZMAN

"For us, the market has proven that programming is where the money is."

DAVE NELSON, Nuvo Labs

"Mac programmers are in the cat-bird seat because the Mac market is so active these days," said Kevin Goldstein, manager and writer at Peter Norton Computing in Los Angeles. "The Mac environment is unique, and that makes the learning curve for DOS programmers so steep at first."

While third-party development has thrived since the Macintosh's introduction in 1984, most companies undertook marketing and publishing as well as development. Free-lance programmers were hired on a project basis or they were drawn into the research arm of a larger company.

This past year, changes abounded in the Macintosh software marketplace. "There is, in fact, a trend toward hiring developers for major products," said Robert Perez, manager of business software evangelism at Apple.

"There has been a three- to four-fold increase in requests for developers," he said. "MS-DOS companies, such as Ashton-Tate, worked closely with Apple to build a Mac team. Fifty percent of my time is spent putting companies together with Mac programmers."

Software entrepreneur Charlie Jackson of Silicon Beach Software of San Diego explained the boom, saying: "There are two ways the demand is growing. Existing Mac companies are growing and need more programmers. Second, MS-DOS companies are clamoring to get into the market.

"Ashton Tate's headhunters were out in force three years ago," Jackson said. "They were scouring the countryside looking for Mac programmers. They even called me to ask for suggestions."

Peter Norton Computing, presently a DOS-oriented company, also has been investigating the Mac market. "I would be lying if I said we weren't interested," said Goldstein. "But we have found that good Mac programmers are hard to come by."

The Mac user interface represents the major challenge for PC programmers, which puts Mac programmers in a strong position, according to Bear Rivers' Richey: "The Mac user interface is the most important element in our progress. It has turned out to be one of the largest factors for the Mac itself," he said.

"More intuition is needed than before," said John Boeschen, who owns an independent programming company in San Rafael, Calif., that deals with all types of computers. "The need for an easy user interface throws some programmers off. Easy didn't used to be an issue."

Nelson has found that Nuvo Labs' clients are starting to be comfortable with contracting out. CMS and Everex are two corporations that have used Nuvo Labs more than once. Even so, most companies would rather oversee their own programmers. "Hiring a Mac team is more the rule, to make them an in-house team," said Apple's Perez. "But on the whole, programmers would prefer to remain independent, which makes for an interesting exchange."

Larger companies have approached both Bear River and Nuvo Labs with acquisition offers. And both have turned them down, hoping that the trend will allow them to continue as their own bosses. Most larger companies, though, have something different in mind.

Steve Starr, director of dBASE Mac development at Ashton-Tate of Torrance, Calif., said, "Some outside work is being done now, but we eventually want people to come in-house with most of the skills we need and we can teach them the rest."

But companies looking to buy may have to adapt to the independence of the programmers. "It's a seller's market," said Perez. According to Meadow and Richey, clients are now more comfortable with outside programming.

The people behind Bear River Associates are, from left, Pam Curry, Mike Sexton, Tony Meadow, Randy Matamoros, Michael Budiansky, Diana Meadow and, standing, Dave Richey.

CAMILLE GOOD

Updating Mac II compatibility

Editor's note: This article is based on testing by Lance Wynne and others at TLC Software and developers they work with. The opinions expressed are Lance Wynne's.

BY LANCE WYNNE
Special to MacWEEK

Did you read about the new Macintosh and say to anyone who would listen that you had to have a Mac II? Did you pester every Apple dealer within six states for the first one they had available? Did you finally get your new Mac II minus its Apple RGB color monitor and unpack it like some precious artifact? Did you try running your old software and suffer through system bomb after bomb? Do you sit next to your new Mac II saying to yourself, "Now what?"

That is just what happened to me! With all the hype that preceded and followed the release of the Mac II, I expected to be able to purchase both the Macintosh II and its compatible color monitor and boards right away. Three months after the Mac II's introduction, I was fortunate to receive a Macintosh II, but I was stuck with a monochrome monitor. Several weeks after my machine arrived, I was told that the RGB monitor wouldn't be available until October.

There are many products that should have been available and compatible for the Mac II from the beginning, but even MacWrite didn't work for the first two months I had my Mac II.

The problems I encountered led me to do informal testing of product compatibility. What I thought would be a quick effort has taken much longer as word of the project got around. At first, I had to look for developers and products to test; now they are coming to me.

The testing was done on a Mac II with 2 Mbytes of RAM, an internal 40-Mbyte hard drive, an 8-bit video card with the 16-bit expansion kit, a floppy drive, a monochrome monitor, an RGB monitor and a PCPC II 19-inch multi-sync color monitor, and System 4.1 and Finder 5.5. I found more than 100 products to be partially or fully compatible. The list of products tested was limited by the amount of software I could obtain, so there are some omissions.

Word processing

MacWrite 4.6 has finally shipped and generally works, but it still has some bugs. When printing a MacWrite document that has been converted from some other word processor, the Chooser turns off the printer selection. Some of the problems I experienced may be related to problems with Chooser 3.1. I want to see an update of MacWrite because I have many MacWrite documents that I can't read on the Mac II. It is possible to convert the documents to another word processor, but I really don't want to go to that much trouble. Watch out for MacOneWrite from Sierra Online, where canceling printing to the LaserWriter may cause a crash.

Communications and network products

Products in this category seem to be faced with several operating problems. I did not test any networking software, so these reports are from outside sources. Think Technologies' InBox is incompatible with System 4.1 on networks using a background (non-dedicated) server, so it cannot be used with the Mac II under those circumstances. MacServe, from Infosphere Inc., will hang up if a volume is removed while you are trying to access it. With VersaTerm Pro 1.2 from Peripherals Computers and InTalk from Palantir, the arrow keys don't work properly. TOPS, from TOPS, A Sun Microsystems Co. (formerly Centram Systems West) reportedly hangs up in environments with many network bridges.

Databases

Database managers can now take advantage of the speed that the Mac II offers and many do. Blyth Software's Omnis 3 Plus, ACIUS' 4th Dimension, Odesta's Helix and Forethought's FileMaker Plus are all compatible. 1st Base, from 1st Desk Systems, which was never HFS compatible, is being upgraded and reportedly works on the Mac II.

Graphics

Graphics programs have always been in high demand for the Macintosh family. Many graphics programs like MacPaint, SuperPaint from Silicon Beach Software and Cricket Draw from Cricket Software are compatible in black-and-white mode. Updates to Cricket Draw and Cricket Graph that include color are available.

Visual Information's Dimensions, a 3-D CAD color program, is compatible and extremely impressive, but it is also expensive. Earlier versions of MacroMind's VideoWorks are not compatible, but the upgrade, VideoWorks II, has been released for the Mac II in brilliant color.

Developers' software

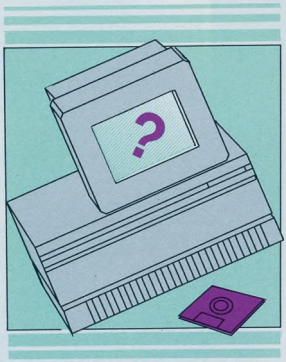
The situation for developers is generally very good. The entire Microsoft Programmers Workshop family, including C, Pascal and MacApp, are compatible, but be sure you get the correct version of Corvus Systems' MACSBug — MacIIBug 5.3 — or you will hang up your system. The other debuggers tested, ICOM Simulations' TMON and The Debugger from Jasik Designs, worked fine. Think Technologies' LightSpeed Pascal and LightSpeed C have been recently updated to work on the Mac II.

Memory

One major problem I have encountered is memory. In particular, 1 Mbyte of RAM is insufficient when using a large-screen monitor. Even after upgrading to 2 Mbytes, two-page editing on such products as Adobe's Illustrator, Aldus' PageMaker and Target Software's Scoop is almost impossible. With each attempt to do two-page editing with these products, I not only experienced a system bomb, I could not boot from the hard disk. Booting from a floppy and updating the disk driver using Apple HD SC setup remedied the problem.

When talking with developers, I frequently heard complaints about the availability of memory and color monitors. Even though Apple has lowered prices, developers are unable to obtain products. Karl Seppala, marketing manager for Orange Micro Inc. of Anaheim, Calif., developer of Ragtime, said, "I know developers who say that if you haven't developed anything for Macs, you probably will receive your Mac II for development; otherwise you will have to purchase one."

Other developers said they weren't interested in waiting for developer services to get them machines and shopped for discounted Mac IIs from dealers. Solutions Inc., developer of SmartScrap and Super Glue, said it not only bought a Mac II from a dealer but also received a discount. Company representatives said the dealer has had Mac IIs since they were first released but still has no color monitors.



According to Kelly Laccabue, an Apple representative, the Mac II will be shipping in large quantities shortly because the production problems have been worked out.

I hope developers will continue to upgrade their products so they are compatible with the Mac II and Apple will have products for those left waiting for a Mac II or a color monitor.

Lance Wynne specializes in product design and implementation for TLC Software Inc., a Macintosh developer and beta test site since the introduction of the Mac II. Randy Kottwitz, author of "The Power Users Manual," assisted with this article. For a complete list of products tested write to TLC Software Inc., 9 Christopher Road, Merrimack, N.H. 03054.

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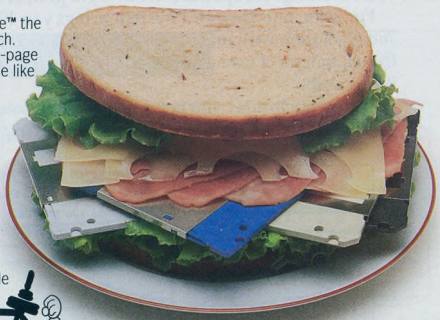

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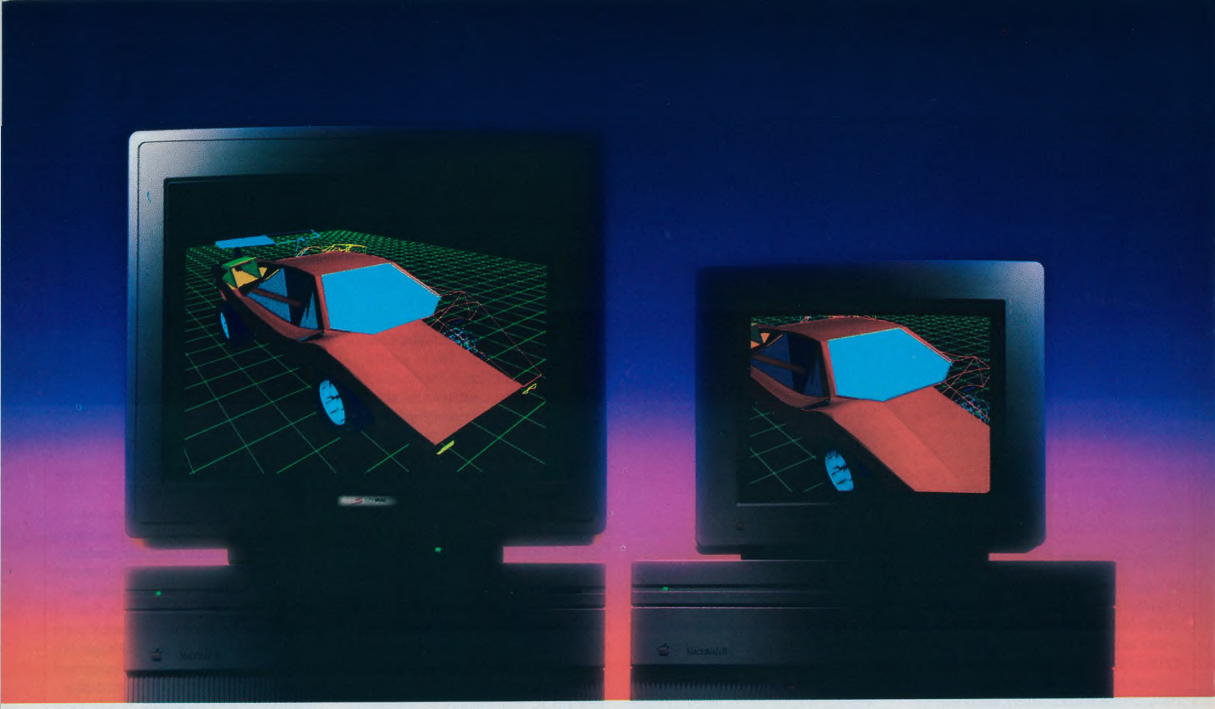

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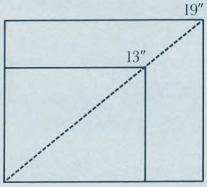

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HyperCard copies difficult to find

BY CLAIR WHITMER
MacWEEK Staff

CUPERTINO, Calif. — Sporadic distribution by Apple may force users in the market for HyperCard to shop around.

In an informal survey of retail stores, some dealers reported no problems with receiving their purchase orders of the relatively new application. But many others said the shipments they've received have been infrequent and inadequate to meet the demand.

"It is a problem. I was promised all kinds of them by the end of September, but I've never had more than four or five in stock," said William Rajscoup of Era Electronics in San Francisco.

Rajscoup is especially concerned because another dealer in the same area is advertising an abundance of HyperCard copies, including a big window display of the product. "People are beating down the doors for them. And when I tell them I don't have any, they say, 'But so-and-so has them in the window,' " he said, adding that the disparity is hurting his business.

Apple acknowledges the situation but doesn't believe that the back orders constitute a major delay, according to Apple representative Cynthia Macon. "It's to be expected. We are still on schedule; it's just a matter of filling all the orders. It's just going to take some time to build and distribute this product," she said.

Macon denied that the company is practicing any selective distribution but said the company is simply filling the orders as they are received. Apple expects to fill all back orders by November, she said.

This would seem to be confirmed by the case of one retail chain, Computer Craft, whose San Francisco outlet reported no difficulties with HyperCard orders. Computer Craft corporate purchasing offices in Houston, however, said Houston outlets have placed a sub-

See HYPERCARD, Page 22

Apple hopes 'Team Selling' will avoid channel conflict

BY RUSTY WESTON
MacWEEK Staff

MAUI, Hawaii — Volume Mac buyers are skeptical about Apple's new strategy of funneling business through resellers, whom buyers suspect know more buzzwords than solutions.

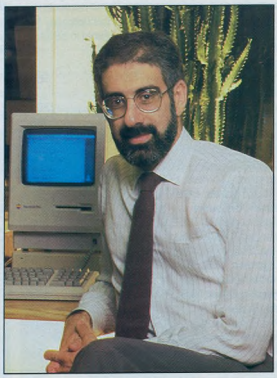
But Apple and industry analysts are optimistic that the Team Selling program will succeed — if only because it sidesteps sales conflicts in reseller channels.

Apple recently kicked off its Team Selling program with an upbeat, three-day sales conference in Maui, Hawaii. Tanned sales representatives were briefed on a market survey that indicated corporate customers think dealers lack the resources to solve problems like connecting Macs to IBM PCs or mainframes.

Apple's 2,000-member sales force and its 1,900 authorized dealers were sent away with the impression they have something to prove to corporate America.

"As people do more and more linking of Macs to other environments and larger machines, dealers don't understand and can't support that environment," said John McCarthy, a market research director with Forrester Research Inc. of Cambridge, Mass.

Jay Adler: "The important thing ... is to have a handle on concepts and provide solutions."



CINDY CHARLES

McCarthy recommended to the conference Oct. 7 that Apple switch to a two-tier dealer structure: one for home, education and small businesses; the other for servicing large connectivity accounts. Apple has already segregated Apple II dealers from Mac dealers.

For now, Apple is implementing its Team Selling program, in which all Apple products will be sold through resellers, including dealers, systems integrators and value-added resellers (VARs). Only the top 75 national accounts will have the option of purchasing equipment directly from Apple.

Apple sales people will assist in stores, make field presentations to customers, and service large, corporate and government accounts.

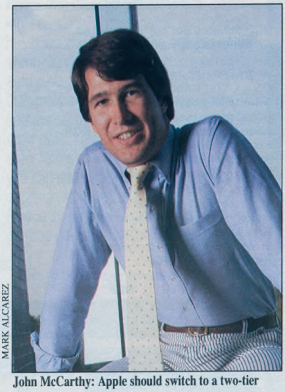
Although Apple has referred business to resellers since it was founded, Apple is trying to avoid hiring too many sales people who will compete against the dealers, as with IBM. Nevertheless, Apple has expanded its sales force by more than 25 percent in the past year and split sales management into three regions.

"We realize major corporations are still looking for Apple faces, but not necessarily Apple price lists," Jim O'Gara, Apple's director of business sales development, said in a recent interview.

O'Gara said he is responsible for the Team Selling program and for selling his employees on the program. "What we're trying to do is put more people in front of the customer," he said. "The model of customer service with account managers was good for penetrating the business market, but the fact [remains] it's cost-prohibitive for any micro manufacturer to take a full, direct-sale approach."

"A lot of corporations like dealing directly with vendors," said Jeff Walker, a partner of MacOrchard of Berkeley, Calif.

Walker said he enjoys flexibility by not being an authorized Apple dealer. "I think [some] corporations are hesitant about dealers because the dealers haven't shown they can support business," he said.



MARK ALCAREZ

John McCarthy: Apple should switch to a two-tier dealer structure.

"We've had no problems working with dealers as far as delivery of product," said Jean Anicetti, a purchasing agent for Genentech Inc. of Concord, Calif., "but we'd like to see a lot more input from Apple, more direct technical support. The dealers know a little bit about everything, but they don't know a lot about everything."

Anicetti, whose biological research company frequently buys Macs and PCs, said: "Our users are very sophisticated, and they need in-depth information that they can't get from dealers. We tend to be very demanding, and I don't know if they can spend as much time as we need."

According to Charles Chickadel, president of Fax Communications Inc. of San Francisco, his company went with a VAR because since

See TEAM, Page 22

DPI, EPI show lower dips than Dow Jones

BY JOSEPH PERATES
Special to MacWEEK

Both MacWEEK publishing indexes dropped this period, following the downturn in the overall market. But the dips of 3.16 percent and 1.96 percent, respectively, for the Desktop Publishing Index and Electronic Publishing Index were less than the nearly 3.5 percent lost by the Dow Jones Industrials.

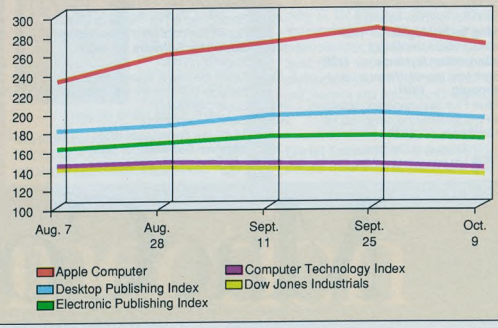
The drop in the Dow resulted from an unexpected hike in the prime rate, a falling dollar overseas and a negative forecast by a widely followed market technician. Apple's stock also declined — by a hefty 5.87 percent — for the first time since MacWEEK began charting publishing stocks. The decline may have been the result of nervousness preceeding Apple's annual earnings report last week. The news was expected to be good, but with Apple's exceptional recent performance, stockholders were inclined to take their profits.

Another notable loser was Apollo Computer Inc., which lost 3-1/4 points following the announcement of a net loss for the quarter.

Two stocks that performed well in the otherwise dismal market were Aldus Corp. and Interleaf. Aldus recovered from 23 to 28-1/4 on news of a new European marketing operation. At its peak during the period, Interleaf topped 24 but closed at 21-1/8, up 1 point. The market continues to recognize Interleaf as one of the strongest players in electronic publishing and that the technical documentation niche it dominates is highly lucrative.

Joseph Perates, a stockbroker in the Newport, R.I., office of Thomson McKinnon Securities, developed the MacWEEK Desktop Publishing and Electronic Publishing indexes. His opinions are his own.

PUBLISHING STOCKS FOLLOW DOWNTURN IN MARKET



Hardware and software for the business Mac.

SOFTWARE

NCP denotes not copy-protected.
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Aegis Development ... NCP
Doug Clapp's Word Tools ..... $42.
Affinity Microsystems ... NCP
Tempo *(power user's macro utility)* ..... 55.
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Expressionist *(equation processor)* ..... 52.
ALSoft ... NCP
DiskExpress *(maximize disk performance)* 27.
Altsys ... NCP
FONTastic Plus *(advanced font editor)* .... 49.
Fontographer *(Laserwriter font editor)* ... 245.
Ann Arbor ... NCP
FullPaint *(advanced Paint program)* ..... 49.
Ashton-Tate ... NCP
dBASE Mac 1.0 *(relational, req. MacPlus)* 299.
Batteries Included ... NCP
Thunder! 1.23 *(spelling checker)* ..... 32.
Berkeley System Design ... NCP
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Omnis 3 Plus *(multi-user available)* ..... call
Borland International ... NCP
Turbo Pascal Tutor ..... 49.
Sidekick 2.0 *(includes MacPlan)* ..... 59.
Turbo Pascal *(HFS compatible)* ..... 59.
Reflex Plus *(relational database)* ..... 165.
BrainPower ... NCP
Graphidex *(DA graphics organizer)* ..... 69.
Designscope *(electronic circuit design)* .. 129.
MathView Professional *(num. analysis)* ... 149.
StatView 512+ *(req. external drive, 512k)* ... 179.
Bravo Technologies ... NCP
MacCalc *(easy to use spreadsheet)* ..... 79.
Broderbund ... NCP
Videoworks II *(graphics & animation)* ..... 119.
CasadyWare ... NCP
Fluent Fonts *(two-disk set)* ..... 29.
Fluent Laser Fonts *(Vols. 1-15)* ..... *each* 48.
CE Software ... NCP
Disktop 3.0 *(powerful DA Finder)* ..... 35.
Centram Systems West ... CP
TOPS *(file-server/LAN software)* ..... 125.
Challenger Software ... NCP
Mac3D *(3D graphics, CAD features)* ..... 129.
Chang Labs ... NCP
Rags to Riches Led., Pay. or Rec. ..... 125.
Rags to Riches 3 Pak ..... 299.
The C.A.T. *(Contacts, Activities, Time)* .... 243.
Inventory Control or Professional Billing ... 243.
Professional 3-Pak ..... 389.
Cortland ... NCP
TopDesk 2.1 *(7 new desk accessories)* .... 34.
Cricket Software ... NCP
Statworks *(statistical package)* ..... 75.
Cricket Graph *(multiple windows)* ..... 125.
Cricket Draw *(advanced draw capabilities)* 175.
Data Tailor ... NCP
Trapeze *(spreadsheet, reqs. 512k)* ..... 159.
DataViz ... NCP
MacLink Plus *(transfer Mac/IBM data)* ..... 159.
Digital, etc. ... NCP
Turbo Maccountant *(GL,AP,AR,Payroll)* .... 259.
Dove Computer ... NCP
RAM Snap *(RAM Disk/Disk Cache)* ..... 24.
Dubl-Click Software ... NCP
World-Class Fonts! *(both Volumes)* ..... 49.
WetPaint Clip Art *(both Volumes)* ..... 49.
Enabling Technologies ... NCP
Pro 3D *(3D shaded modeling)* ..... 199.
Fifth Generation Systems ... NCP
FastBack Mac *(powerful backup utility)* ..... 59.
Forethought ... NCP
FileMaker Plus *(feature-packed database)* .. 149.
PowerPoint *(professional presentations)* ... 209.
FWB Software ... NCP
Hard Disk Backup or Partition ..... 38.
Hard Disk Util *(program backup)* ..... 56.
Greene, Inc. ... NCP
QuickDEX *(address book)* ..... $24.
Ideaform ... NCP
MacLabeler or DiskQuick ..... 29.
Imagine ... NCP
Smart Alarms *(DA reminder system)* ..... 38.
Multi-User Smart Alarms ..... 99.
Infosphere ... CP
LaserServe *(LaserWriter spooler)* ..... 65.
ComServe 1.0 *(modem sharer, NCP)* ..... 129.
MacServe *(AppleTalk software)* ..... 165.
Innovative Data Design ... NCP
MacDraft 1.2A *(requires 512k)* ..... 159.
LaserWare ... CP
LaserWorks *(requires 512k, LaserWriter)* ... 199.
LaserPaint *(requires Mac Plus, LaserWriter)* 319.
Layered ... CP
Notes for...Excel, Works, or Word. .... *each* 42.
Legisoft/Nolo Press ... NCP
WillWriter 2.0 *(prepare your own will)* ..... 31.
Living Videotext ... NCP
More 1.1C *(outlines, windows, & tree charts)* 149.
Lundeen & Associates ... NCP
WorksPlus Spell ..... 38.
Macropac International ... NCP
101 Macros for Excel ..... 49.
Micro Analyst ... NCP
Mac Zap *(recover crashed hard disks)* ..... 36.
Microsoft ... NCP
Basic Interpreter 3.0 ..... 64.
Chart 1.02 *(42 chart styles, CP)* ..... 72.
Multiplan 1.1 or File 1.05 ..... 111.
Basic Compiler 1.0 ..... 119.
Fortran 2.2 *(compiler)* ..... 169.
Works 1.0 *(integrated tool)* ..... 189.
Excel 1.04 *(power spreadsheet)* ..... 224.
Word 3.01 *(word processor)* ..... 239.
Mindscape ... CP
GraphicWorks 1.1 *(newsletters, posters)* .... 48.
Monogram ... NCP
Dollars & Sense *(home, small business)* .... 81.
Odesta ... NCP
Double Helix II *(relational, custom menus)* 275.
OWL International ... NCP
Guide *(hypertext, free-form info)* ..... 79.
Guide Envelope System ..... 99.
Palantir ... NCP
inTalk *(communication to emulation)* ..... 99.
PBI Software ... NCP
HFS Locater *(DA organizer for HFS)* ..... 26.
HD Backup *(supports MFS, HFS)* ..... 29.
Personal Computer Peripherals ... NCP
HFS Backup ..... 32.
ProVUE Development ... NCP
OverVUE 2.0 *(power-packed database)* ... 149.
Satori ... NCP
BulkMailer 3.0 *(mailing lists)* ..... 85.
BulkMailer Plus *(up to 90,000 names)* .... 199.
Legal Billing *(attorneys to accountants)* .... 385.
Legal Billing II *(full trust accounting)* ..... 575.
Project Billing *(architects to engineers)* .... 445.
Silicon Beach Software ... NCP
Silicon Press *(printer utility, 512k)* ..... 41.
SuperPaint *(advanced graphics program)* .. 79.
SoftStyle ... NCP
Printworks *(print faster & in color)* ..... 49.
Software Discoveries ... NCP
Record Holder Plus *(data manager)* ..... 45.
Software Ventures ... NCP
Microphone 1.1 *(includes Glue™)* ..... 119.
Solutions, Inc. ... NCP
SmartScrap & The Clipper or Glue ..... 41.
SuperGlue *(total graphic integration)* ..... 59.
SuperMac Software ... NCP
SuperSpool 3.4 ..... 49.
Diskfit *(backup & restore utility)* ..... 49.
Network Diskfit *(automatic backup)* ..... 259.
SuperLaserSpool ..... 99.
Sentinel *(encryption)* ..... 99.
Multi-User SuperLaserSpool ..... 259.
Survivor Software ... NCP
MacMoney *(financial planner)* ..... 42.
Symmetry ... NCP
Acta 2.0 *(outline/writing desk accessory)* ... $38.
PictureBase 1.2 *(clip art manager, 512k)* .... 59.
T/Maker ... NCP
ClickArt Personal Graphics, Effects, Publications, Letters Vol. 1 or 2, Holidays, Business Image ..... *each* 28.
Bombay, Plymouth, or Seville Laser font ... 46.
Write Now *(word processor)* ..... 99.
THINK Technologies ... NCP
HFS Navigator 1.0 *(search for buried files)* .. 39.
Laserspeed *(Laserwriter utility)* ..... 59.
Lightspeed Pascal *(includes debugger)* .... 85.
Lightspeed C *(top-rated C Compiler)* ..... 99.
InBox Starter Kit *(CP)* ..... 219.
TML Systems ... NCP
TML Pascal *(compiler, req. 512k)* ..... 68.
TrueBasic ... NCP
True BASIC *(fast, flexible & portable)* ..... 59.
Algebra 1 or II, Trigonometry, 3D Graphics, Probability & MacFunction ..... *each* 35.
TrueSTAT *(statistics)* ..... 58.
Runtime *(create stand-alone applications)* ... 59.
William & Macias ... NCP
myDiskLabeler *(design & print labels)* ..... 24.
myDiskLabeler w/Color *(req. Imagewriter II)* .. 33.
myDiskLabeler w/Laserwriter option ..... 38.
Working Software ... NCP
Lookup *(90,000 word dictionary)* ..... 29.
Findswell *(locate documents fast)* ..... 29.
Spellswell 2.0 *(spelling checker)* ..... 42.

HARDWARE

Manufacturer's minimum limited warranty period is listed after each company name. Some products in their line may have longer warranty periods. Note: Some hardware items are available in either platinum or beige color. Please specify.

20 Meg SCSI Hard Drive *(120 days)* ..... 569.
AST Research ... 6 months
AST Turboscan *(300 dpi scanner)* ..... 1395.
AST 2000 *(20 Meg, 20 Meg tape)* ..... 1395.
Curtis Manufacturing ... lifetime
Diamond *(6 outlets)* ..... 29.
Emerald *(6 outlets; 6 ft cord)* ..... 36.
Sapphire *(3 outlets; EMI/RFI filtered)* ..... 47.
Ruby *(6 outlets; EMI/RFI filtered; 6 ft cord)* ... 55.
Dove Computer ... 90 days
MacSnap 548S *(512E to 2 Mb w/SCSI Port)* 469.
MacSnap 2S *(1 Mb to 2.5 Mb, expandable)* 489.
MacSnap 4S *(1 Mb to 4 Mb)* ..... 969.
Ergotron ... 1 year
Mouse Cleaner 360° ..... 15.
MacTilt or MacTilt SE ..... 74.
MacBuffer 512k ..... 329.
MacBuffer 1024k ..... 429.
Farallon Computing ... 1 year
PhoneNET PLUS *(DB-9 or DIN-8)* ..... 39.
Hayes ... 2 years
Smartcom II *(communications software)* .... 88.
Smartmodem 1200 ..... 299.
Smartmodem 2400 ..... 449.
Kensington ... 1 year
Disk Drive Cleaning Kit ..... 20.
Tilt/Swivel ..... 22.
Universal Copy Stand ..... 24.
Polarizing Filter or Surge Suppressor ..... 34.
Apple Security Kit ..... 35.
Printer Muffler *(80 column)* ..... 39.
System Saver Mac or Control Center ..... 64.
A-B Box *(for the Mac Plus)* ..... 64.
Turbo Mouse *(for the MacPlus, SE & II)* ..... 85.
Koala Technologies ... 90 days
MacVision *(digitizer)* ..... 175.
Kraft ... 1 year
3 Button Quickstick ..... 39.
Migent ... 1 year
Pocket Modem *(ext. 1200 baud)* ..... 169.
Mirror Technologies ... 1 year
Magnum 800 External Drive ..... 209.
Magnum Tape 20 Backup ..... $899.
MagNet 30x *(w/cable)* ..... 799.
MagNet 40x *(w/cable)* ..... 1079.
MagNet 40/40 *(40 Meg, 40 Meg tape)* ... 2139.
Nutmeg Systems ... 1 year
Nutmeg FPD 15" Monitor ..... 1395.
Nutmeg 19" Monitor ..... 1549.
Personal Computer Peripherals ... 2 years
MacBottom HD 21 Meg SCSI ..... 769.
MacBottom HD 32 Meg SCSI ..... 899.
MacBottom HD 45 Meg SCSI ..... 1159.
Optional built-in modems available ..... call
SoftStyle ... 90 days
MacEnhancer *(for plotters to printers)* ..... 175.
Systems Control ... 2 years
MacGard *(surge protection)* ..... 55.
Thunderware ... 90 days
ThunderScan 4.0 w/Power Port ..... 199.

DISKS

Sony 3½" DS/DD Disks *(box of 10)* ..... 19.
Fuji 3½" DS/DD Disks *(box of 10)* ..... 20.
MAXELL 3½" DS/DD Disks *(box of 10)* .... 20.
Verbatim 3½" DS/DD Disks *(box of 10)* .... 20.
3M 3½" DS/DD Disks *(box of 10)* ..... 21.

ACCESSORIES

I/O Design
Imageware II *(Imagewriter II carry case)* .... 49.
Macinware Plus *(Mac Plus carry case)* ..... 69.
Macinware SE *(Mac SE carry case)* ..... 79.
Kalmar Designs
Teakwood Roll-top Case *(holds 45 disks)* ... 14.
Teakwood Roll-top Case *(holds 90 disks)* ... 21.
Moustrak
Moustrak Pad *(standard 7" x 9")* ..... 8.
Moustrak Pad *(large 9" x 11")* ..... 9.
Sensible Softworks
Quality "MacAttire" nylon dust covers. .... 7-17.
High Trek Mac Plus carry case ..... 59.
High Trek Mac SE & extd. kybd. carry case 69.

OUR POLICY

- We accept VISA and MASTERCARD.
- No surcharge added for credit card orders.
- Your card is not charged until we ship.
- If we must ship a partial order, we never charge freight on the shipment(s) that complete the order.
- No sales tax.
- All U.S. shipments insured; no additional charge.
- APO/FPO orders usually shipped 1st Class Mail.
- Allow 1 week for personal and company checks to clear.
- UPS Next-Day-Air available.
- COD max. $1000. Cash or certified check.
- 120 day limited warranty on all products.*
- To order, call us anytime Monday thru Friday 9:00 to 9:00, or Saturday 9:00 to 5:30. You can call our business offices at 603/446-7711 Monday through Friday 9:00 to 5:30.

SHIPPING

Note: Accounts on net terms pay actual shipping. **Continental US:** Barring massive computer failures and other natural or unnatural catastrophes, all non-C.O.D. orders phoned into MacConnection by 8 PM EST will ship Airborne the same night for next day delivery, except for those within UPS Ground Zone 1 (which is also an overnight service). The total freight charge on any order placed with MacConnection is now $3. Backorders will also ship Airborne overnight at no additional charge. Some areas require an additional day delivery. **Hawaii, Alaska and Outside Continental US:** Call 603/446-7711 for information.

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MacConnection™

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*All items subject to availability. Prices subject to change without notice.

Bonzer!

Megabytes and Modem in one!

MacBottom SCSI Drives can solve two of your system enhancement problems in one simple swoop. Not only do they pack 21, 32, or 45 megabytes (take your pick) in one very light *(but not lightweight)* package, but for a mere pittance you can get a Hayes compatible 1200 baud modem built right in. MacBottoms all arrive completely formatted. Here's what you have to do to get up and running. Pay close attention! 1. Take MacBottom out of box and place under Mac. 2. Plug it in. 3. Connect the cables. 4. Select the SCSI address. 5. Turn it on.

Of course, you can do some pretty fancy things with your new drive, especially with the software that comes with it: print spooling, floppy disk duplicator, a backup program and other utilities. Personal Computer Peripherals sells each one with unlimited technical support, a complete upgrade policy, and a 2-year warranty.

Available in either platinum or beige color. Please specify.

Personal Computer Peripherals ... 2 years

MacBottom HD 21 Meg SCSI **$769**
MacBottom HD 32 Meg SCSI **$899**
MacBottom HD 45 Meg SCSI **$1159**
Optional Built-in 1200 baud modem (available for each unit) ..... **$call**

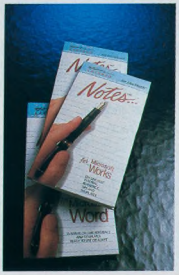
Better reflexes.

Reflex (the multi-file database with organizing, reporting, and analyzing capabilities) has been cranked up a few notches with some significant new features: macros, auto-save, a powerful GroupBY function that groups records as you need them, and the capability to calculate fields as you enter data. There are also new multiple-entry forms as well as default formats—you can even enter data for more than one database from within a single form. Reflex Plus is the perfect way to turn all that disorganized data into useful information.

Borland's Reflex Plus (not copy-protected, for 512, 512E, MacPlus, SE & II) **$165**

Behind the screens.

There's nothing more useful than having a real live expert nearby when you're using an applications program. Notes are the next best thing. They're available for Excel, Microsoft Works, Word, and other programs. Each comes with three different levels of *on-line* help—for beginners, intermediate users, and experts. You'll have advice, tips, short cuts, and documentation always available. And there's a rapid reference feature so you can quickly find the help you need.



Layered (copy-protected)
Notes for Excel, Microsoft Works, or Word ..... each **$42**

$3 Overnight.

Do you know that practically all of the people we ship to receive their packages *the next day?* For only $3 per order. With our new Fly-by-Night℠ service, all you need to do is (1) phone in your non-COD order by 8 PM EST, (2) relax, watch TV or go bowling, (3) accept delivery of your order the next day. Because while you were asleep, your order was picked, packed, trucked, planed, sorted, and then some. To make sure you'd have it when you need it—in most cases, by noon.

The *only* exception would be in the event of extremely unnatural circumstances (i.e. massive computer failures, Marlow-wide power blackouts, etc.). Airborne Express handles the majority of our shipments and, in all but a few cases, will deliver the following day. Orders for delivery within UPS Ground Zone 1 will ship UPS and arrive the next day.

It's (safely) in the bag.

The Macinware SE bag is the ultimate luxury luggage for your Mac SE. It has padded pockets for mouse, cords, keyboard, and a special compartment for a disk drive, modem, or accessories. It's better padded than a left tackle and built just as solidly. So you can safely and comfortably lug your Mac SE across field, hills and valley. (Or, just to your car in the parking lot). It's available in navy blue or platinum grey.

I/O Design
Macinware SE Carry Case **$79**

Modem clone.

It doesn't look like a modem. It looks like software— which it is. But ComServe can combine with a single modem to give an entire network telecommunications capability. You eliminate bundles of wire and bushels of expense, as everyone in your AppleTalk network can share a single modem.

Infosphere's ComServe 1.0
(not copy-protected, for 512, 512E, MacPlus, XL, SE & II) **$129**

True specials.

That big, better, and best BASIC, True BASIC, is particularly well-loved for its portability to other computers and wide range of control libraries that greatly simplify programming. This month we're offering a special on the package itself along with the 3D Library or Algebra I.

True BASIC (not copy-protected, for 512, 512E, MacPlus, SE & II) **$59**
3D Library or Algebra I (with purchase of above) **$25**

Artistic freedom.

Cricket Draw takes its graphics cue from the LaserWriter, not the Mac's display resolution. That means you can use a full 300 dots per inch when printing your drawings instead of a paltry 72. Big difference. Awesome difference. You can shade with a 0% to 100% gray scale, create shadows, logarithmic shading, starburst, grates, smooth curves, and just about anything else your left brain can dream up and convince your right brain it's worth doing. The output will blow both away.

(Figuratively speaking, of course).

Cricket Software (not copy-protected)
Cricket Draw (for 512E, Plus, SE & II) **$175**

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TEAM

Continued from Page 19

1982, when Fax Communications began using personal computers, dealers have been inept and have overplayed the ease of operating computers.

"I realized that it would be worth the extra money to have somebody configure it so everything works together — scanner, laser printer and special-purpose programs," Chickadel said. "We could have gotten things at a discount, but it didn't seem like the headache of configuring and installing the system would be worth it."

"I think that a lot of those criticisms have been valid in the past, and Apple's answer is Team Selling," said an Apple dealer sales representative in Maui. "We recognize our dealers have various capabilities, and by using the strengths of the dealers and our systems engineers, we can provide solutions. Also, Apple increased its outside support group by 30 percent since last March.

"Chuck Boesenberg (Apple vice president of sales and marketing) said in March he wanted all channel conflict ended by Oct. 1, and he effectively has ended it."

Suzanne Crocker, a Businessland spokeswoman, said: "There is a perception that not all dealers and stores can handle technical services support, but not all stores are the same. Businessland has 90 systems engineers and we have the resources to sell networking and connectivity.

"You need a systems engineer on that kind of a [corporate] sale for the consultation and installation," she said.

"In general, Businessland and Apple have shown that this kind of team relationship has been able to work reasonably well," said Richard Edwards, a limited partner of Robertson, Colman & Stephens, a San Francisco investment bank.

But while most analysts agree that the Businessland chain leads the pack in employee training, opinions differ as to the quality of its competition.

"Traditionally, the computer retail channel has not been geared to do [technical support], and the sales expertise hasn't been up to it," said Bill Lempesis, an analyst for Dataquest, a market research firm in San Jose, Calif. "A lot of dealers have fairly high turnover rates and lack the consistency Apple would find with its own sales force."

Jay Adler, a ComputerLand store salesman in San Francisco, said: "The important thing isn't for us to be experts; it's to have a handle on concepts and provide solutions. When I came in [a year ago], I didn't get an awful lot of training. But we have people coming in and doing presentations all the time."

"I think Team Selling is a very creative strategy," said Apple analyst Peter Rogers of Mabon Nugent, a New York investment bank. "It is also a necessity because they are avoiding channel conflict. Only IBM could get away with undercutting its own dealers."

"Apple has been quite different than IBM as far as being a competitor," said Businessland's Crocker. "IBM has a huge direct sales force whose job is to sell products we sell." ■

HYPERCARD

Continued from Page 19

stantial number of back orders.

According to dealers surveyed, most customers are simply peeved by the wait for their own copy of HyperCard. Others, however, are upset by what they see as a failed promise to deliver HyperCard with every Mac sold since Aug. 11.

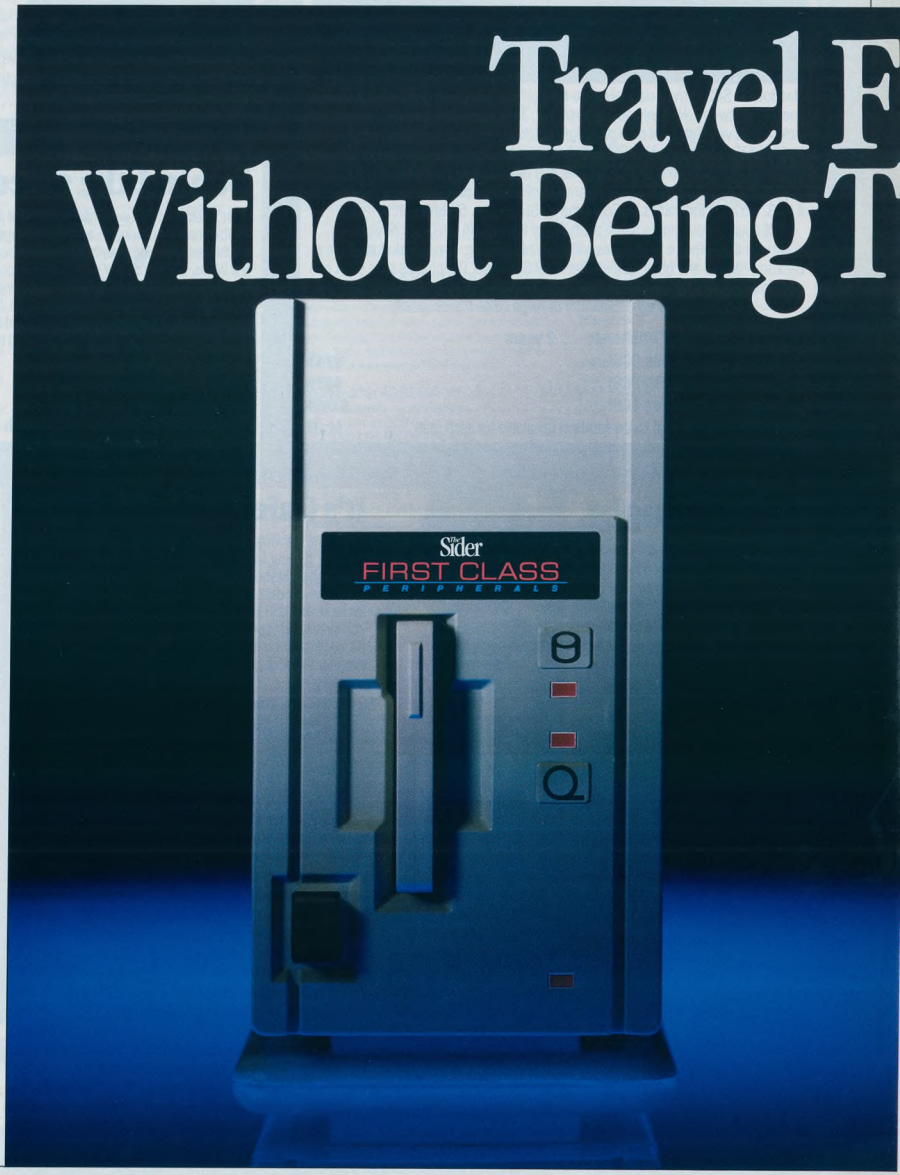
"It's a big disappointment, and I think it displays a profound immaturity in the industry," said Charles Chickadel, president of Fax Communications Inc. of San Francisco. "It seems like this is the way the industry had decided to work." Chickadel recently ordered a Macintosh through a value-added reseller who has been unable to get him a copy of HyperCard to go with his new system.

An unprecedented demand for the product seems to be the root of the problem. Apple's policy is that every buyer of a new Macintosh since Aug. 11 is owed a copy. The program has been bundled with every machine coming off the manufacturing line since then.

But many dealers have only Macs shipped before Aug. 11 in stock. To provide new owners with their copies, dealers have to tap the supplies intended for separate sale, leaving few, if any, available for previous users.

"There's been an awful lot of hype about HyperCard. People don't even know what they are ordering, but they want it," said a dealer who asked not to be named because he was concerned about an unfilled HyperCard order.

"It's to be expected. It's a $49 program that everybody wants," said William Stead, a sales representative of Clinton Computer of Clinton, Md. ■



Apple, DEC to show networking connections in joint exhibit

BY JON SWARTZ
MacWEEK Staff

PRINCETON, N.J. — Apple and Digital Equipment Corp. will showcase networking connections between their computers for the firs. time early next year at DEXPO East '88.

The exhibit, prompted by the participation of Apple-to-DEC networking software firms Kinetics Inc. of Walnut Creek, Calif., and White Pine Software Inc. of Nashua, N.H., at last year's show, is scheduled for Feb. 16-18 in New York.

In fact, DEC and Apple have indicated future joint projects. John Sculley, Apple president, chairman and CEO, said: "Apple users within the DEC environment are bringing us together. DEC users like working on Apple."

A show spokeswoman said DEXPO organizers hope to make the exhibit, called the Apple-DEC Computing Center, an annual event. Apple also has reserved space for an unspecified number of Apple value-added resellers (VARs), and 13 third-party vendors are scheduled to demonstrate Mac-to-VAX integration products.

So far, 14 vendors have reserved space for the exhibit, including TOPS, A Sun Microsystems Co. (formerly Centram Systems West) of Berkeley, Calif.; Odesta Corp.of Northbrook, Ill.; Kinetics; and White Pine Software. ■

irst Class
aken For A Ride.

Introducing Our Latest Sider, Model C46. 40 Megs Primary Storage. 60 Megs Integral Tape Backup. $1995.00 Total.

First, The Problem.
Apple is telling the world these days that the power, versatility and compatibility of the new Macintoshes are going to end forever any doubts that these are first-class business machines.

But what kind of business you actually get down to has as much to do with the peripherals you attach as it does the computer itself. Take mass storage. For many companies, serious business means nothing less than 40 megabytes of primary capacity and at least an equal amount of backup — ideally in the same subsystem package.

A few packages do exist with those specifications. But the price tags are absolutely stratospheric — which for many companies anxious to get down to business can be downright catastrophic.

First Class, The Solution.
The Sider Model C46 changes all of that. Sure, you get capacity, speed, performance, reliability, backup and restore. You get a slim, smart-looking, easy-to-install unit that is compatible with the Macintosh Plus, SE and II — and the Apple II+, IIe and IIGS as well. And with our 60 meg tape (not 40 meg, like the competition), you get backup you can lock up for security and, thanks to total Sider cartridge interchangeability, you get data you can pack up and take anywhere.

But what you get that really astounds is a price tag the others can only envy. It reads $1995.

It also reads First Class Peripherals, for those of you wondering how that price could possibly be attached to this product. For years, the names "Sider" and "First Class" have been synonymous with truly affordable, zero defect mass storage among Apple II users.

Now, we intend to establish the same standard in the Macintosh world. With a family of subsystems that includes, besides the Model C46, both a 20- and 40-megabyte hard disk Sider subsystem and a Sider 60-megabyte tape backup subsystem.

Call us toll free for the name of the First Class Peripherals dealer nearest you. And find out for yourself how easy it is to get down the price of getting down to business.

800•982•3232

FIRST CLASS
PERIPHERALS

3579 Highway 50 East, Carson City, Nevada 89701

CALENDAR

OCTOBER

26-28 — **CEPS/Fall Corporate Electronic Publishing Systems** (Boston)
This conference and exhibition with more than 130 vendors will feature products and systems for desktop, workstation and dedicated publishing. Exhibitors include IBM, Apple, DEC, Wang and other major developers. The four conference tracks will address CEPS management issues, desktop-publishing trends, product distribution opportunities and CEPS' impact on traditional publishing and printing industries. Contact: Customer Services at (203) 964-8287.

27-29 — **CASES Computer-Aided Software Engineering Symposium** (San Francisco)
Conference features a one-day session on the trends, characteristics, components and issues of CASE technology, and two days of product presentations from companies such as Abvent, DEC, Arthur Young & Co. and Knowledgeware. Contact: Digital Consulting Inc. at (617) 470-3870.

27-30 — **EDUCOM '87** (Los Angeles)
Conference will feature sessions and seminars on supercomputing, desktop publishing, software evaluation, BITNET, campuswide and wide-area networking, and writing centers. The three-day event is sponsored by Apple, AT&T, DEC and IBM. Contact: EDUCOM at (609) 734-1647.

NOVEMBER

2-6 — **COMDEX/Fall '87** (Las Vegas)
Apple will appear at this premiere microcomputer exposition. Contact: the Interface Group at (617) 449-6600.

9-13 — **Advanced Systems Analysis** (San Francisco)
This five-day course is designed to show experienced systems analysts how to break away from a "bits and bytes" perspective and view operations from a business point of view. The program is aimed at systems analysts, lead programers, project leaders and executives involved in systems-related assignments, focusing on strengthening analytical skills and techniques for systems analysis and design. Contact: Charles D. Black at the Association for Systems Management at (415) 428-4786.

9-12 — **NCGA Mapping & Geography Information Systems '87** (San Diego)
Sponsored by the National Computer Graphics Association, the conference and exposition will highlight automated mapping and geographic information systems. More than 25 vendors are expected to exhibit. The conference portion will be divided into three program areas: automated mapping/facilities management (AM/FM), geographic information systems (GIS) and energy mapping. Contact: Bob Cramblitt at (703) 698-9600.

Send calendar events to: Clair Whitmer, MacWEEK Calendar, 525 Brannan St., San Francisco, Calif. 94107.

Look-and-feel rules could impede innovation

It's the silly season in the long-running look-and-feel debate.

Two of the industry's leading litigators, Apple and Lotus Development Corp., can't agree on how deeply to plunge the knife in their efforts to kill off software competition.

They both want it dead, all right. The debate last month before the U.S. Copyright Office was a disagreement over tactics, not purpose.

The question on the floor is: Are copyrights granted for original works of software sufficient to protect authors from imitation of screen images, or should separate copyrights be available to cover displays? It's a question arcane enough to keep scores of lawyers employed for the next few months.

To Apple, it's a simple matter of grabbing whatever protection it possibly can. If the Copyright Office would give coverage to the sound and smell of a computer as well as the look and feel, you can bet Apple would be first in line applying for it.

Lotus counters that adding coverage for particular aspects of programs might weaken the overall protection granted for the underlying code. Lotus has at least three lawsuits riding on the belief that protection of code extends to on-screen appearance. This is no time to tinker with technicalities.

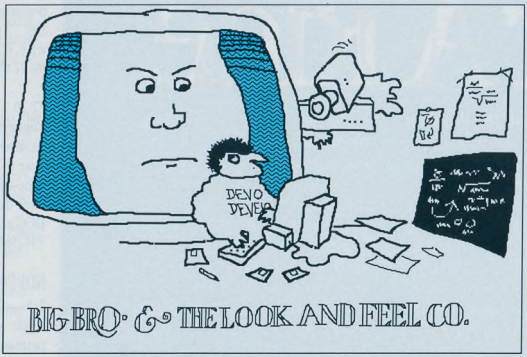
Neither company has the best interests of its users in mind. Of course, exact screen layouts and text should be protected from duplication. To allow byte-for-byte, pixel-for-pixel ripoffs would only serve to discourage developers from working hard to create innovative software.

But outright copying is already well protected by the current interpretation of the copyright law. An equally insidious outcome would result if the courts granted overly broad protections. Developers who originated a type of software or a technique for operating the software would own it for all time. Competitors couldn't refine, modify or imitate useful features.

Software evolves in a process of building on the successful ideas of predecessors. Broad protection would only serve to impede innovation. With broad interpretation, we might have no SuperPaint, no Ready,Set,Go!, no 4th Dimension. Or — how about a really scary thought — no Macintosh, since the Mac interface is really a Xerox innovation. Apple is already facing the loss of some of its uniqueness because Microsoft has created a similar graphical interface for the dreaded PC. (Apple saved face by getting Microsoft to agree to license the concept.) What Apple is up to is making sure that the interface buck stops here, and God forbid it should ever appear on an Atari.

Protecting the interface is important for Apple but not for users. It is in users' interests for good programming ideas to spread as far and wide as possible. That's the fundamental public policy issue in the look and feel debate. A secondary priority in setting technology policy is to eliminate unnecessary red tape and keep lawyers as far away from software as possible.

On both counts — user interest and legal overinvolvement — screen copyrights are a bad idea. ■



LOUIS DUNN

TO THE EDITOR

BASIC environment

I enjoyed the article by Vernon Keenan (Window On Programming, Sept. 22) about programming the Mac in the corporate, as opposed to the commercial, environment, but I feel that he overlooked the most usable environment of all — BASIC.

We use an estimating system for highway and heavy construction that has evolved into a system of more than 10,000 lines of compiled BASIC. It does the number crunching; has the Mac features such as menus, buttons, dialogs, scrolls, command keys and multiple windows; and, best of all, actually works. We use Microsoft BASIC; however, Z BASIC and True BASIC offer very functional packages. MS BASIC for the Mac is as easy to learn as any other BASIC. It can be as "structured" as the user cares to make it, it offers easy access to the Mac Toolbox, and the compiled product runs fast enough to satisfy almost anyone.

For the individual who needs custom software, is not troubled by the "stigma" of a "toy" language and does not want to bother with variable declaration, colons, semicolons, superfluous BEGIN-END pairs or curly braces, but simply wants to get the job done, BASIC is worth a look.

Wayne D. Wands, project manager
Boh Bros. Construction Co. Inc., New Orleans, La.

Software protection

I object to the Software Publishers Association advertisement on Page 29 of the Sept. 29 issue. The ad says it is illegal to copy unprotected software except for backups.

Not so! It is only illegal to copy properly copyrighted software. Public domain and non-copyrighted software can be copied freely, despite what the SPA says. They should clarify their ad and stop adding confusion to the issue.

Anthony J. Oresteen
Batavia, Ill.

Send letters to MacWEEK, 525 Brannan St., San Francisco, Calif. 94107; or via MCI Mail to MacWEEK. Please include your name, title, company name, address and phone number.

Searching for a way to find files on a Mac hard disk

VISIBLE RESULTS

Steve Rosenthal

Someday I'll clean up my hard disk. But in the meantime, it's a good thing some clever folks have come up with programs that actually find missing files.

My hard disk isn't all that bad (nothing like the overflowing desktop that the computer sits on, to be sure), but I do a lot of jumping from project to project. If you do that, too, you'll know that once a few days or weeks go by between sessions working with a document, you can forget where you put it, or even what its name is and which program you used to create it.

The Mac's HFS (Hierarchical File System) with its folders and folders within folders helps keep files logically grouped and easy to locate if you have a limited number of items. But once you get dozens of folders and hundreds of files, HFS can be a barrier to efficient searching. If you have your files all arrayed in folders, that very hierarchy becomes a thicket of branches and leaves you have to traverse to make your search.

If you misplace a file but remember its name, there are a number of programs that can help. (See "Third parties join the search for missing documents," MacWEEK, Sept. 8, for a review of four of the most popular programs.)

I'm just as likely to have forgotten the file name as the location, however. Find File, the file-locating Desk Accessory that Apple now supplies as part of the Mac system software won't help in that situation; it only searches by file name and knows nothing about dates, file types or file contents.

Findswell from Working Software Inc. of Monterey, Calif., praised in MacWEEK's review for its ease of use and speed, knows only a bit more about files than Find File. You can only specify the file name or part of it as a search target.

HFS Locator from PBI Software Inc of Foster City, Calif., and DiskTop from CE Software of Des Moines, Iowa, on the other hand, do have multidimensional search definitions. Both let you specify file creation or modification dates and restrict the search to document type or accept all that match in other respects regardless of original creating program.

DiskTop is particularly strong in this respect, with a search specification screen that lets you specify any combination of name, file type, creator program, creation or modification date and even file size.

So even if all you can remember is that you did the file last week and it was about 4 Kbytes long, you have a good shot at finding it without a struggle. And if you're enough of a hacker to have caught on to file types and creator IDs for files, you can make use of that information as well. One particularly nice feature for those of us at the semi-hacker level is a choice of "Same Type as" that lets you replicate the creator or type from any existing program, allowing you to pick up the information from a similar file rather than forcing you to memorize what the sometimes cryptic four-letter combinations mean.

For times when all I can come up with is a snippet of the file content, I've been looking for a program that would look through my disk files and find any text that matched a search string, a feature included in a number of IBM PC packages.

I had hoped that a text-retrieval program called Sonar from Virginia Software Services Inc. in Midlothian Va., might do this job. This program finds files in a hurry based only on a string or string combinations that appear within the file, but it's more of a specialized text-retrieval tool than a general file-finding solution. Before you can search, you have to preprocess each file you want included, and it only searches for text, MacWrite, WriteNow, MORE, Word and Trapeze files.

Even if I could find a program that did an efficient full-disk search on content, date or any other factor, that still wouldn't solve the problem of keeping a neater and more logically structured hard disk. After all, one of my goals in this area is to need fewer searches rather than just make them easier to do.

On the IBM PC, there are more than half a dozen good, highly visual, interactive programs for ordering your files and folders, but I haven't run across one of similar caliber for the Mac. If you've got one, let me know. Until then, I'll continue playing hide and seek. ■

THE LONG VIEW

Lawrence Magid

Shortly after breakfast on Oct. 1, my wife told me the news. The Los Angeles area, 400 miles south, had just suffered an earthquake. Some buildings had collapsed and there were already reports of death and injuries. My thoughts immediately turned to my mother and sister in the area.

I picked up the phone, but despite repeated tries I got only a busy signal, indicating that all circuits to the area were in use. A call to an AT&T operator confirmed my suspicions. Long distance lines to Southern California were jammed; local phone service, as far as she knew, was still working.

From experience, I knew that it might be possible for someone in the Los Angeles area to call my mom even though I couldn't reach her by long distance. But every call I made to the area yielded the same incessant busy signal.

I turned to my Mac for help. My first hunch was to get on CompuServe to see if I could reach someone in the Los Angeles area via CB, CompuServe's electronic party line. Perhaps I could persuade a Los Angeles-based user to make a local call and report back on my mom's situation. I put out a call for help, but no one in the Los Angeles area was using the CB channel at the time.

Then I turned to MCI Mail and sent an urgent plea to a friend who checks his mail on a regular basis. The connection to MCI Mail involves a local call to a "switch" that sends the data via a special data communications network (called a packet-switching network) from the local area to the service's mainframe system near Washington, D.C.

I posted the message, hoping my friend would soon get on line and read his mail. He did, and he was able to get my message, call my mother and report that everything was OK.

The experience gave me a fresh perspective on the potential role of computer information services in times of local or national emergency. With long distance service unavailable, the computer link, via a packet-switching network, became a viable alternate channel. What's more, computer data travels more efficiently than voice, which can be very important during an emergency.

Of course, on-line services are also vulnerable to disruption during an emergency, but they offer an alternative that could be essential at such times. In this case, the problem wasn't damaged lines but overburdened long distance networks. The computer network passed my message to an otherwise inaccessible area.

Using an on-line service to exchange information during this emergency makes me even more concerned about the potential impact of the Federal Communication Commission's proposed plan to add an access charge of $4.50 per hour to the cost of using such services.

The charge would almost double the cost of some services, possibly driving some providers out of business or at least limiting the growth of the nascent data communications industry.

Instead of setting up roadblocks, the FCC should be nurturing the industry's growth. There are many reasons to support the argument that the industry is in the national interest, but I've just added civil defense to my list.

I admit that this was not a life and death situation — I just wanted assurance that my relatives were all right. But I can envision cases when the timely passing of information could save lives or property.

One action the federal government could take, with the cooperation of the on-line industry, is establish an emergency communications system similar to the emergency broadcast system for radio and television stations.

Computer services that use interstate packet-switching networks could be required, or at least strongly encouraged, to offer emergency channels. An option could be added to the main menu, allowing users to obtain vital information or communicate with a live operator who, via an interactive chat mode, could assess a problem and provide assistance during emergencies.

If you agree with the idea of establishing such emergency channels, send E-mail to your favorite on-line service and a copy to me (MCI Mail "LMAGID"/CompuServe 70665,140). But first, write the FCC (1919 M St. N.W., Washington, D.C. 20554) against the proposed access charge. Oct. 26 is the deadline for public response. ■

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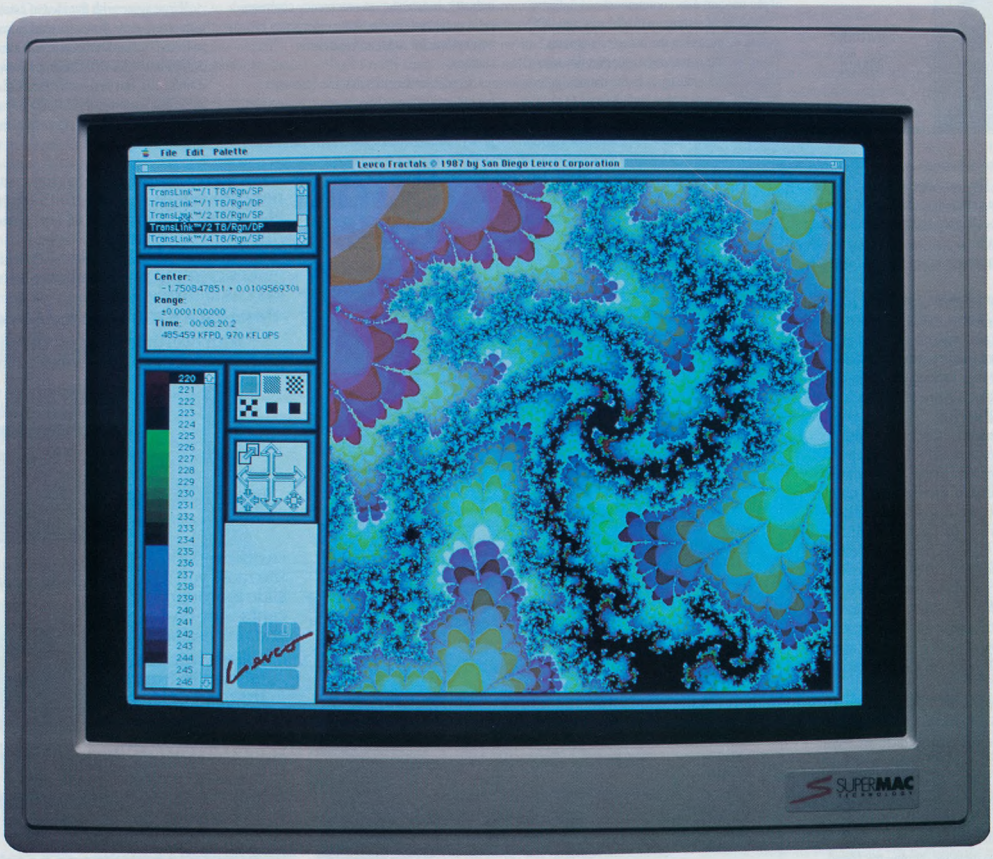
WINDOW ON HIGH-RESOLUTION MONITORS



MACINTOSH DISPLAYS ARE GROWING UP

About the photo: The image shown on the above 1,024-by-768-pixel Spectrum high-resolution monitor from SuperMac Technology was produced by Duane Maxwell, using a fractal generating program running on a Levco TransLink parallel processing board for the Mac II.

All four of the classic microcomputer applications — word processors, spreadsheets, database systems and communications — can profit from a larger screen.

BY MARK L. VAN NAME and WILLIAM B. CATCHINGS
Special to MacWEEK

One of the earliest and most persistent criticisms of the Macintosh has been that its screen is too small.

Macintosh users counter this complaint by pointing out that the Mac's text and graphics are crisp, clear and flicker-free, and that the small screen helps make the Macintosh transportable.

Today, however, there are products to meet the need for a larger high-resolution screen. Some, notably the Full Page Display from Radius Inc. of Sunnyvale, Calif., and the MegaScreen from MegaGraphics Inc. (formerly MicroGraphic Images Corp.) of Canoga Park, Calif., work with earlier Macintosh models. Many more are being built for the Mac II.

Rather than include a monitor, the Mac II uses its NuBus expansion bus to accept video cards that drive their corresponding monitors. It even can support several monitors acting as if they were one larger display. Apple offers one Mac II video card, with either a monochrome or a color monitor, and other companies are offering competing high-resolution displays.

COURTESY MEGAGRAPHICS

The resolution of a display can be defined in two ways. One is the number of dots, or pixels, on the screen. This is usually expressed as the number of horizontal pixels multiplied by the number of vertical pixels. The normal Macintosh monitor has a resolution of 512 by 348 pixels, while the high-resolution LaserView from Sigma Designs Inc. of Fremont, Calif., offers 1,664 by 1,200 pixels.

The other commonly used measurement is the number of dots per inch (dpi) on the screen. The Mac screen has 72 dpi, while other Macintosh monitors range from 69 dpi for the Apple Color Monitor to 150 dpi for one model of the LaserView.

In general, larger monitors provide higher resolution. The most common measurement of monitor size is the diagonal length of the screen. The original Macintosh screen is 9 inches, Apple's Mac II monochrome and color monitors are 12 inches and 13 inches, respectively, and some high-resolution monitors are as large as 19 inches. A bigger screen, however, does not always have a higher resolution.

This is because resolution is determined by two major components: the display itself and the video card that drives it. A video card contains hardware, firmware and screen-display memory that control the number and configuration of pixels that the card sends to the monitor.

The monitor, in turn, displays that input signal. Consequently, monitors of the same size can have different resolutions. For example, two video card and 19-inch monitor combinations, or video systems, currently available are the 1,664-by-1,200-pixel LaserView from Sigma Designs and the 1,024-by-768-pixel Spectrum from SuperMac Technology of Mountain View, Calif.

More pixels give you room on the screen for more and bigger images. The number of pixels that make up a particular image, however, does not change. For example, if an icon like the Trash Can takes about one-half inch of space on a normal Mac monitor, that means it is represented by 36 pixels — half of the Mac's 72 dpi. If you put that same 36-pixel icon on a display with 150 dpi, it will take up only about a quarter of an inch. It appears smaller because of the higher resolution.

Despite this minor problem, the main advantage of a high-resolution video system is obvious: You get to see more at one time. Almost every application can benefit from having more information on the screen.

Benefits of larger screens

All four of the classic microcomputer applications — word processors, spreadsheets, database systems and communications programs — can profit from a larger screen.

The benefit to word processing is clear: You can see more text, so you spend less time scrolling around in the document. You also have the chance to see pages as they will appear on paper because many high-resolution systems can display one or even two complete pages of text at once.

With a spreadsheet program, you can see bigger worksheets. Once again, by having more information on the display, you have to scroll around the worksheet less. The main advantage for database systems is being able to design display forms and reports that contain more data and more closely resemble their paper counterparts.

Communication packages benefit from such video systems in less obvious ways. One is that you can keep on the screen both a communications session and an editor with which you are preparing a note for transmission. Some products also allow you to use the additional screen area to have multiple terminal sessions active at once or to emulate larger graphics terminals, such as some of the graphics displays from Tektronix Inc. of Beaverton, Ore.

Other common applications also can be helped by higher-resolution video systems. With integrated software packages such as Works from Microsoft Corp. of Redmond, Wash., you can use the larger display area to keep several components on the screen at once. You can have an editing window, with another window showing a graph of a spreadsheet and a list of names and telephone numbers in still another.

Program development can become much simpler. Think about how nice it would be

> Almost every application can benefit from having more information on the screen.

to have the source code for two or three modules on the screen at once or to see large windows for the source code trace, breakpoint list and variable display functions of a debugger.

Graphics use

Two of the applications most often associated with the Macintosh — graphics and desktop publishing — also are two that benefit most from these displays. You can view whole images on the screen rather than work on them in pieces. You can see an entire graph or slide as it will be printed, or look at a much larger section of a CAD display than could be shown on a smaller monitor. Desktop publishers can view complete pages, text and graphics as they evolve.

The biggest drawback to high-resolution monitors is their price. They start at around $1,795, and you can easily spend $3,000 or more. Unless you use your Mac for many hours each day, it can be hard to justify this expense.

You also have to consider the impact on your Macintosh. With a Mac II, everything is simple: Drop a card in a NuBus slot, hook up the monitor and it is ready to go. The expansion slot on the Mac SE also makes it easy to

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Productivity rises with big picture

Graphic artists, like most employees, strive to improve their productivity. Leonard Rifkin, an on-site graphics artist for the McDonnell-Douglas Research Laboratories in St. Louis, realized that using a high-resolution Macintosh monitor could spur the productivity of his graphic arts group. The monitor chosen for the job was The Big Picture from E-Machines Inc. of Tualatin, Ore.

Rifkin's group performs a variety of services for the research scientists at their laboratories. They create view-graphs, slides, posters and other graphics for presentations in either color or black and white. They also put together reports and conference papers.

Prior to August 1986, before becoming a Macintosh user, Rifkin was a board illustrator whose projects involved physical artwork.

Moved to provide the best possible services for its scientists, McDonnell-Douglas assigned him exclusively to the research laboratories and put him on-site with the scientists.

Rifkin uses computers to make the artwork and import scientific data from the host systems, primarily Digital Equipment Corp. VAX computers. "Our department is a firm believer in using computers for graphics," Rifkin said. "For the past 13 months, I've been on a computer, and for the past 10 months I've been on site. I wouldn't have it any other way."

Screen size limits

His department has several Mac Pluses and a few Apple IIs and plans to get more computers. After working with the Macintosh for several months, Rifkin noticed that he wasted time working around the limitations of the screen size. After analyzing his work habits, he presented a report to his management. The results convinced them to let him investigate high-resolution monitors. "I spend about 6.5 work

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COURTESY SIGMA DESIGNS

MONITORS

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upgrade, although you have only one slot, so you have to use it wisely.

If you are one of the many owners of earlier Macintosh models, however, you may have to change your Macintosh in ways that can void its warranty. The high-resolution video systems for such Macintoshes typically are installed either by soldering a connection to the Mac's central processor, the Motorola 68000 chip, or by replacing the 68000 with a card and then plugging the 68000 back into a slot on that card.

Some of these systems also include a fan because the extra circuitry in your Macintosh can cause it to run hotter. The additional card also can take up the space in your Macintosh that might have been filled with a hard disk.

Other concerns

The final problem with adding a high-resolution monitor to your Macintosh concerns software, not hardware. Some programs will not take advantage of the extra screen size. Those that obey Apple's standard Macintosh programming guidelines will do fine. Such "well-behaved" applications do not assume a screen size and, instead, ask the system for the screen size and act accordingly. Some programs assume a screen size and will not open a window bigger than that.

Often, however, applications will let you expand their windows or drag them to other positions on the screen. Some applications, including many games, will not take advantage of bigger screens in any way.

Fortunately, the Mac II's lack of a standard video card is likely to prompt software vendors to make sure their products are well-behaved. The number of programs that do not work well with high-resolution displays is certain to shrink.

If you decide that you are ready to get a high-resolution display, the first major choice you must make is whether to get a portrait or a landscape display.

A portrait display is vertically oriented, so that it is taller than it is wide. Radius' Full Page Display and the monitor from Nutmeg Systems both follow this display model. Portrait displays are particularly well-suited to word-processing applications because they usually allow you to see an entire 8.5-by-11-inch page at once.

A landscape display is oriented the other way; it is wider than it is tall. Nearly all of the other Macintosh high-resolution monitors are of this type, including The Big Picture from E-Machines Inc. of Tualatin, Ore.; MegaGraphics' MegaScreen; Sigma Designs' LaserView; and SuperMac Technology's Spectrum and Graphix.

> Try to test-drive the monitors with the same applications you use at work and, ideally, in the same type of light.

Try to test-drive the monitors with the same applications you use at work and, ideally, in the same type of light. Different monitors behave differently under fluorescent or incandescent light.

They also vary in the sharpness and brightness of the text and images they display, particularly at the edges, and in the brightness and quality of their colors. The tint of the screens differ because some display a purer white than others. All can consume a great deal of space on your desktop, although their footprints vary. Make sure that your particular applications can take advantage of the larger screen.

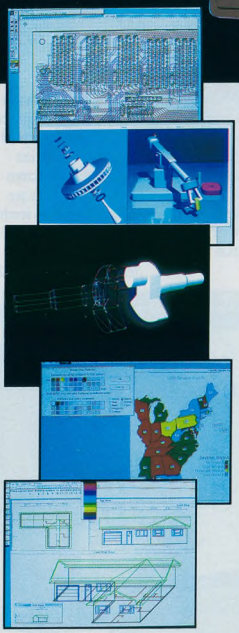
Most companies still bundle their video cards and monitors into one product, but many are beginning to offer them separately. If you elect to combine a video card and a monitor from different sources, be very sure that they work together. If possible, get your dealer to show them in action. Many combinations will not work.

Some combinations will work but will not display images as clearly as possible. For example, the Apple Color Monitor is a specially designed Sony Trinitron monitor. If you connect an off-the-shelf Sony Trinitron monitor to the Apple Video Card, you will get an image that is not as crisp and clear as the one on the Apple monitor.

Finally, all the monitors offer software options that can make them more suitable for

See MONITORS, Page 29

The best color graphics display for the Macintosh II



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Actual PCPC II screen images.

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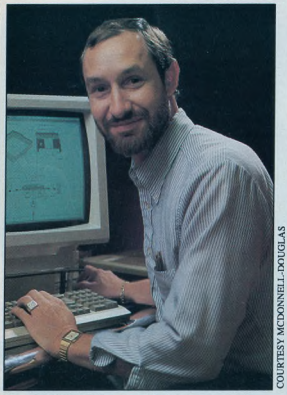

COURTESY MCDONNELL-DOUGLAS

Leonard Rifkin: "The work is finished more quickly and with greater accuracy" with the larger monitors.

PICTURE

Continued from Page 27

hours each day in front of a computer, of which about 1.3 hours are spent scrolling and reducing the image and looking around the screen because of the small screen size. That comes out to about 300 hours per year spent scrolling. That figure, times the hourly rate, gives a cost that makes it easy to justify a large monitor," he said.

After researching the market, he contacted E-Machines, which sent him a prototype of its 17-inch landscape monitor, The Big Picture. He is still using that monitor, and since then the department has bought five more and plans to purchase additional monitors next year.

The larger monitors have paid off to everyone's satisfaction. Rifkin's users are pleased by how quickly and easily they get to see the early drafts of his work. "The work is finished more quickly and with greater accuracy. They can sit next to me at the computer and tell me anything they want changed," Rifkin said.

Savings also are realized because Rifkin works faster and closer to the form he eventually produces on the page. "The large-screen monitor gives you a full view of the artwork. The Mac screen shows only a portion of the image, so you spend most of your time scrolling around looking at parts of the images. Basically, you're producing the art more quickly, so the dollars per piece is lower," he said.

Rifkin also finds the larger display easier on his eyes than the original Mac screen. The difference in dots per inch — the Macintosh has 72 dpi, The Big Picture has 82 dpi — does not cause the icons or cursor to shrink enough to bother him. He often finds the extra resolution extremely useful. "If you're just doing a word chart, you don't see any resolution difference. If you're doing a drawing, the extra resolution is very nice," he said.

He also stated that the portrait display mode, while useful for some applications, is not the best for his needs: "The horizontal screen format, I believe, is going to be the best overall for computer artists. I can get a whole page on screen and even blow it up one level. The vertical format might be better for desktop publishing."

Rifkin's group has improved its productivity and saved money despite the cost of their high-resolution monitors. Their clients are happy they get their graphics so quickly. "As far as the screen goes, I couldn't be more pleased. Not only do you produce more artwork, it's much easier on the illustrators," Rifkin said. — *By Mark L. Van Name and William B. Catchings*

MONITORS

Continued from Page 28

your daily work. A screen saver is particularly important because at these prices you do not want to burn an image into a large monitor and have to replace it. Some provide several standard cursor and font sizes, which can make reading the display easier.

Primarily because of their relatively high prices, high-resolution monitors clearly are not for everyone. If you are content with the size of your Macintosh's screen or if you do not use your Macintosh for many hours each day, you probably do not need one.

If you have the money or you are a steady Macintosh user who will ultimately save time and money by buying a high-resolution monitor, you are in for a treat. The additional screen space is very useful in most applications.

Despite the high price, more and more Macintosh users are turning to high-resolution displays to make their work easier and more enjoyable. ■

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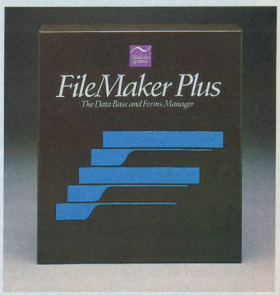

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BY PHIL INJE CHANG
Special to MacWEEK

ThunderScan, the inexpensive "scanner for the rest of us," has been one of the most popular Mac peripherals since it first appeared in November 1984. Version 4.0 doesn't look much different from the previous ones — the heart of the system, an optical digitizer that mounts in place of the ribbon cartridge in an ImageWriter printer, remains unchanged.

What's new is that the sophisticated imaging abilities planted in the device years ago by creator Andy Hertzfeld have at last been unleashed. The "eye of the Mac," regarded by some as little more than a toy, is suddenly capable of generating output that approaches magazine quality.

ThunderScanning is as slow as ever, and unless you have a Mac II, you still won't be able to appreciate the quality of ThunderScanned images on screen. But with the new software, you will be able to save your scans in a variety of standard formats, transfer them into popular desktop-publishing applications and end up with stunning high-quality images with up to 32 levels of gray shading.

Every ThunderScan package now includes a Power Port, an adapter that provides an elegant solution to the problem of operating a device designed for the original Mac off the streamlined — and powerless — printer port of the Mac Plus and SE. (Mac II users must still buy an accessory and cable for an additional $49.)

The new software has options for saving scanned images as PICT, TIFF (Tag Image File Format) or EPSF (Encapsulated PostScript) files, in addition to MacPaint's bit-mapped format and ThunderScan's native format. A new Lasso tool makes it possible to select irregular shapes for editing, cutting and copying. With the new WYSIWYG print interface you can enlarge images proportionally on screen. New print routines turn ThunderScan images into much more sophisticated output from Post-Script-driven output devices. Instead of the 300-dpi bit maps it used to produce, it now lets PostScript produce halftone cells at the maximum resolution of the printer. From a Linotronic the results look almost like photographs.

Actually, the most significant changes reflected in this new incarnation of the original Mac scanner have little to do with the product itself. The overriding fact in the world of desktop publishing is that aesthetic expectations are maturing just as fast as the hardware and software tools.

Since ThunderScan was first introduced, Aldus has spearheaded the acceptance of TIFF as a standard format for scanned images. LaserWriters are now in wide use, and more often users are seeking even higher resolution output. The new ThunderScan is above all a response to these rising expectations and capabilities.

ThunderScan gray-scale images can be imported into PageMaker 2.0, Ready, Set,Go! 4.0, and Quark XPress and cropped and sized to fit the finished page.

First, gray scale

ThunderScan has always supported gray-scale imaging, a format for bit-mapped data that specifies the actual gray level of each dot or pixel. Because its slow ImageWriter-based scanning speed allows a wide data bandwidth, ThunderScan can store 5 bits per pixel — 32 shades of gray. This not only provides a pathway to higher resolution printing but also allows image retouching without the labor of love involved in FatBits editing.

Currently, there is a trade-off between scanning speed and image manipulation capabilities, although high-speed gray-scale scanners are due from several vendors within a few months. At present most 300-dpi desktop scanners scan a letter-sized page in less than five minutes, but they save a dithered halftone, not a genuine gray map, for continuous-tone images like photographs.

This means two things: First, the printed photo will look somewhat chunky, and not bet-

From Botticelli to balloons in GrayView

Eight hours after the arrival of his Mac II in July, David Fry was hard at work on GrayView — a new program designed to display ThunderScan's SCAN files with true grays on the new Mac monitor. Between graduate studies and teaching responsibilities in the math department at Harvard University, Fry, a staunch fan of ThunderScan, had generated a large collection of images with ThunderWare's optical digitizer. He knew that in these scans lay true gray-scale information about the original image — 5 bits worth or enough to distinguish 32 shades of gray.

But the grays could neither be displayed on the classic Mac screen nor printed out (except with Knowledge Engineering's JustText, a relatively uncommon and difficult program). Like most ThunderScan owners, Fry could only use MacPaint bit maps of his scanned images — nice but far from photographic quality.

A week and a half after he began, Fry had completed an original version of GrayView. He uploaded it to the Mac II data library in CompuServe's Mac Users' Forum, making it available free of charge (except for the on-line connect time). Since the program is compressed to only 41 Kbytes, the expense is modest.

GrayView simply opens SCAN files, converts them to a new file-type ("gray") and displays them with 32 shades of gray on screen. (You can also use it to view PICT files in black and white or color.)

You need a Mac II, of course, and to take full advantage of the program, you'll have to have added video RAM to support the 256-color option. You'll also want plenty of memory and disk space because SCAN and GrayView files are enormous.

But if you have the hardware, you will enjoy the view. Scanned photos and paintings displayed with GrayView are richer with shading subtler than all other graphics on a personal computer monitor. Even if you don't have ThunderScan, you can have such images on your Mac II. Fry and other pioneers have posted some spectacular examples, ranging from Botticelli to balloons.

GrayView isn't Image Studio — it has only a few of the gray-shade editing features of the forthcoming Letraset program. GrayView does let you select and copy or save any rectangular portion of the scan, and it allows you to save images in MacDraw PICT format or as PICT resources with ID=0, so you can reopen them or use them as startup screens.

In two weeks in September, Fry produced a completely new version of GrayView, this one destined for commercial release later this year. The publisher has not yet been announced, but Fry said the price should be less than $100.

The enhanced version has a variety of new tools for editing images and adding color. You can lighten, darken, invert or tint regions; blur edges; filter out scanning imperfections; and pencil or paint with colors chosen from a palette or picked up from part of the image. You can even remap selected shades of gray to other colors. The new version will save in (but not read) TIFF format — an option that will make it possible to use edited scans in desktop publishing programs.

The current version of, GrayView, 1.15, is available on CompuServe, GEnie and many other bulletin boards. *—Henry Norr*

Botticelli's "The Birth of Venus"(1480), scanned with ThunderScan, selected and saved in PICT format from GrayView.

ter from a Linotronic than from a LaserWriter. ThunderScans, on the other hand, come out of PostScript imagesetters like the Linotronic with a much better approximation of the continuous-tone original.

The second problem with other scanners is that changing contrast and brightness requires a new scan. You spend time doing multiple scans or drowning in an endless checkerboard sea of FatBits — and gray images never really get any better. ThunderScan does have a FatBits feature, but with gray-scale data it can support other and easier touch-up capabilities as well. Any portion of an existing scan can be re-halftoned with a different contrast, brightness and gray map. (Neither the magnification of the scan nor the area scanned can be changed after the fact.)

Be forewarned: ThunderScanning an image can take a good while. In the worst case, processing an 8- by 10-inch image (ThunderScan's maximum size) scanned at 400 percent magnification requires some 40 minutes. At 100 percent magnification, a scan of similar size takes an average of 15 minutes, even with bidirectional scanning.

You will need space as well as time. When the gray map does not fit in memory, ThunderScan will write it to disk. According to the User Guide, the bit map and gray map for one image of maximum size may add up to as much as 2 Mbytes, even though the software performs some data compression. A hard drive is a virtual necessity.

Next, TIFF

Thanks to the TIFF standard, ThunderScan gray-scale images can be imported into PageMaker 2.0, Ready,Set,Go! 4.0 and Quark XPress,then cropped and sized to fit the finished page. Image Studio, the forthcoming Letraset program, will offer further possibilities for editing the scanned graphics.

Hertzfeld's implementation of TIFF is unique in some respects, but ThunderWare said any application that can read other TIFF files can handle ThunderScan's images. You can also save images in Encapsulated PostScript Format, though this usually requires more disk space for high-resolution bit maps.

High resolution?

How high does ThunderScan go? It increases resolution by increasing magnification — at 100 percent magnification, it will scan at 72 dpi. At 200 percent magnification it records twice as many dots, and on screen the image will appear twice as large as in the original. Printing such a file at 50 percent, however, results in an image of the same size as the original, but with twice the resolution.

The specs recommended by ThunderWare for reproducing continuous-tone images at the original size with optimum use of disk space and printer resolution are: 200 percent at 50 percent on the LaserWriter, 300 percent at 33 percent for the Linotronic 100, and 400 percent at 25 percent for the Linotronic 300. Dots per inch is a different issue with gray scale and halftones; use these line screen frequencies for the same printers: 50, 100, and 120 to 150, respectively. For printing on the LaserWriter, line art images should be scanned at 400 percent and printed at 25 percent.

Ease of use and performance

Niceties like "auto-auto-scrolling" (give a push with the mouse and the image keeps moving in the same direction until another click) seem to carry Hertzfeld's signature. Dialog boxes arise in an orderly sequence from a minimum of menu commands. On the hardware side, the scanner is a reliable workhorse. You can adjust the original's squareness in the ImageWriter's roller-feed mechanism manually before scanning, which is vital for line art with straight edges, unlike most roller-feed scanners.

Good documentation, questionable support

The well-designed tutorial and manual provide access to higher levels of use, like creating custom gray maps and doing more with PostScript. Technical support is not a toll-free phone call. ThunderWare's handling of upgrades, however, is cause for concern. Even after paying an extra charge for rush handling, registered owners have had to wait six weeks or longer for new software or adapters, On bulletin boards, several users complain that ThunderWare personnel are unhelpful and even rude when questioned about the delays.

Summary

Powerful as it is, ThunderScan takes too long to be practical in offices with scanning requirements. For those of us with limited budgets, high aesthetic standards and limited scanning to do, ThunderWare's little scanner can produce highly effective output. ■

Phil Inje Chang is a personal publisher, editor and writer in the San Francisco Bay area.

Clearly, the Full Page Display You'll Want to Look Into.

Nutmeg Systems—Clearer. Sharper. Dependable. Affordable.

When it comes to buying a Full Page Display for your Macintosh™ computer, the choice is clear—here's why.
Clearer. Compare our Nutmeg/Xerox* Full Page Display (FPD) to other big screens. Our images are darker, sharper, and easier to read—edge to edge and top to bottom!
Sharper. Our pixel density (90 dpi), combined with a special paper white phosphor screen, make the Nutmeg/Xerox FPD markedly sharper and easier to look at than other big screens. Other screens are 72-80 dpi and all use a harsher phosphor.
Dependable. Developed by Xerox, backed by extensive research and development, and supported by Xerox Service Centers nationwide, the Xerox FPD monitor joins a long line of respected products. Ergonomically designed, the Xerox FPD tilts and swivels to any position, facilitating maximum user comfort. Combined with the Nutmeg interface board, the Nutmeg/Xerox FPD becomes the clearly superior display.
Affordable. Clearer. Sharper. Dependable. And the final reason to choose the Nutmeg/Xerox FPD? It's the most affordable!

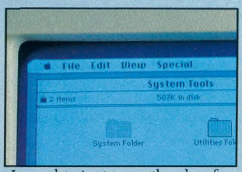

Image deteriorates near the edge of another company's FPD screen.

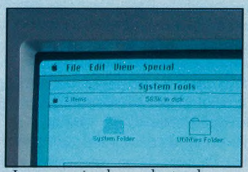

Image remains sharp, edge to edge on the Nutmeg/Xerox FPD.

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Nutmeg Systems, Inc.
25 South Avenue
New Canaan, CT 06840
203-966-3226

Visit your authorized Apple dealer and compare. You'll see why the Nutmeg/Xerox FPD is the CLEAR CHOICE.

*Xerox is a trademark of Xerox Corporation. Macintosh is a trademark licensed to Apple Computer.

CAD on a micro becomes a Snap!

Snap! 2.0

Data Basics
P.O. Box 32
Sunset, S.C. 29685
(803) 878-7484
List price :**$695;** Snap! Translator: **$195**
Strengths: Powerful 2-D drawing capabilities; symbol library; variable measuring units; dual views; good plotter support; file compatibility with Intergraph IGDS. Weaknesses: Experienced Mac users may need some time to adjust to an interface without an icon tool palette.

NEWELL COLOR

BY FRANK CONFORTI
Special to MacWEEK

Until not long ago the C in CAD — computer-aided design — meant mainframe or mini.

Now, increasingly, it also means micro, but many users remain loyal to the large and expensive turnkey design systems on which they have become proficient. Snap!, a two-dimensional drafting and design package from Data Basics of Sunset, S.C., is one of several recent micro products designed to appeal to such users by offering features familiar from proven programs — in this case, the popular but pricey Intergraph IGDS system.

On the whole, Data Basics has done an excellent job combining the power of the turnkey system with the graphics capabilities and interface of the Macintosh. Snap! is missing a few of Intergraph's more esoteric features. On the other hand, people accustomed to MacDraw may initially find some of the new program's procedures less intuitive.

But the net result is a sophisticated and reasonably priced tool well-suited for a variety of architectural and engineering design tasks. It has features — a symbol library, multiple layers and dual views — that give it a level of convenience and power lacking in MacDraw. And via the Snap! Translator, a utility program available at extra cost from Data Basics, it is possible to exchange files with almost complete compatibility between Snap! and the Intergraph system.

One of the first noticeable differences between Snap! and MacDraw is that the icons usually associated with drawing programs are absent from Snap! You use menu and keyboard commands instead of an icon palette to choose the tool you want to use next.

The File menu lets you open and close design files, the term used to describe Snap! and Intergraph drawings. Instead of the usual New command, however, Snap! has two commands, Create and Create Using Seed File, that immediately create files on the disk. Seed files are similar to the style sheets and "stationery pads" offered by several word-processing programs. Information such as drawing size, drawing format, title block and working units (feet and inches or miles and feet, for example) is copied from the seed file into the newly created drawing.

The File menu also includes commands to create and attach the symbol file, a library where graphic elements are stored for repeated insertion in a drawing. The symbol library can be likened to the Scrapbook, except that the whole symbol is treated as a single element when inserted in a drawing. There also is an accounting function, a handy feature used to track the amount of time spent creating each design file.

When the design file is created, the user goes to the Set menu to choose the units of measurement for the drawing. Units of measure vary among different disciplines. A mechanical designer wants to work in inches or mills, just as an architect prefers to work in feet and inches. Other important parameters dealt with under the Set menu are the line code (seven types), line weight (10 choices), active angle, active level and, on a Mac II, color.

Snap! allows placement of graphic primitives such as lines, arcs and circles either directly, with menu commands and mouse clicks, or indirectly, by entering x and y coordinates from the keyboard. Once placed, these elements may be modified in many ways, including location, orientation, scale and appearance. Drawing elements can be divided into logical groups — such as walls, doors and object lines — and assigned to different levels, like multiple sheets of clear paper. Drafting professionals will recognize levels as computerized overlay drafting.

Like the Intergraph IGDS system, Snap! lets you change parameters with a series of keyboard commands called key-ins — a feature that is not part of the standard Mac interface but can be extremely convenient. All key-ins consist of two characters, an equal sign and the data for that particular key-in. For instance, the active angle, a parameter used for certain element-modifying commands and symbol insertion, can be set at 30° using the Active Angle command under the Set menu or by the key-in AN=<30>.

Snap! opens two independent windows into the drawing, which can be used to examine two different parts of the drawing or the same section from different viewing distances (zoom scales). The user can even work from one view to another, marking the starting point for an element in one view and the end point in the other. On a Mac II, you can even put the two views on separate screens.The views are controlled through the View menu, which allows the user to zoom in or out multiple times, copy one view's parameters into the other, scroll the views around and in general accurately control what portions of the drawing Snap! is displaying.

The Draw, Mod and Geo menus

The three menus users will find themselves pulling down most often are labeled Draw, Mod and Geo. Under the Draw menu, all of the standard primitive elements are found: lines, shapes, blocks, line strings, curve strings, circles and arcs. Such elements can be input via the mouse or by using key-in commands.

Herein lies Snap!'s strength and namesake. In CAD, most drawing elements are inserted using a combination of free placement and placement with respect to other elements. A circle, for example, may be placed 3 feet, 2 inches at 30 degrees from the left of another line. With Snap!, all that is needed is to "snap" to the end of the first line and key-in DA=3:2,30. This type of element insertion, impossible in MacDraw, is a powerful and easily overlooked feature, and it's what makes Snap! so close to Intergraph's IGDS in terms of operational technique.

The Mod menu is used to modify existing elements via a series of easily understood commands. Unlike MacDraw, where selected objects can be modified by pulling on handles or backspacing, Snap! requires a specific modify command to be invoked before a change can be made. Besides self-explanatory commands like Delete, Copy and Move, there is a powerful Partial delete function that allows the user to remove part of any element. In MacDraw, a common way to achieve the same effect is to place a solid white box with no border over part of the element. Snap!'s more elegant approach — directly modifying the element — doesn't require the user to continually keep an eye out for these blank elements. Other options include various ways of rotating, scaling and mirroring selected objects.

The commands under Snap!'s Geo (for geometry) menu let you create construction lines — the lines drafters often lay down as guides prior to creating the actual object lines. Data Basics lets you extend, copy parallel and in general manipulate lines accurately. An Extend Two Lines to Int. command will modify the endpoints of two lines until they meet, an extremely accurate technique used to create snap points for further element placement.

Good fences make good groups

Snap!'s element-grouping commands, called Fence commands, allow the operator to do group operations on elements. A fence is placed around the elements to be manipulated, and the particular fence-manipulation command is invoked. The key is the flexible way elements can be moved, rotated and copied.

The program uses standard Macintosh text-editing routines and supports either raster text à la MacDraw or stroked text for use in pen plotting. Snap!'s dimension package is reasonably complete, though items like tolerancing and radial or diametric dimensions have to be placed as auxiliary text.

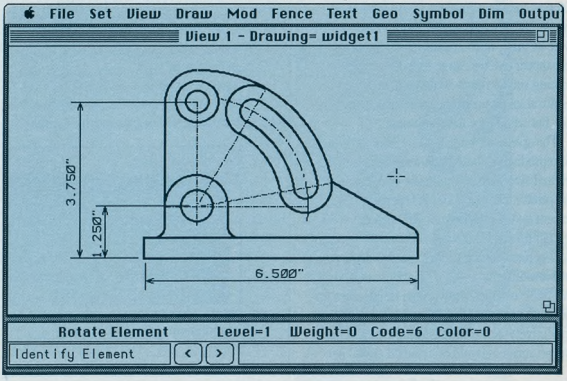
In terms of output, Snap! has a bevy of options. It really shines with pen plotter output on both Hewlett-Packard and Houston Instruments plotters. Plot scales are user definable, but a series of standard scales (1 inch equals 0.25 inch, for example) are included. Snap! takes full advantage of multiple-line styles and line weights to give the user an aesthetically pleasing drawing.

Data Basics' manual is very thorough and includes a good tutorial section that walks the user through most of Snap!'s commands. Some Mac CAD systems still adhere to the ill-conceived notion that thick, informative manuals are taboo; in this respect, Snap's manual is more IBM-like.

The index could use some refinement, though — we could find no reference there to the program's color options. In terms of user support, we have found the people at Data Basics able and willing to provide excellent assistance.

Snap! is an excellent compromise of a large CAD system's design philosophy and the Mac's superior user interface. Its resemblance to Intergraph should not deter non-Intergraph users from considering this package. On the contrary, if you need a powerful yet easy to use CAD package, you should consider Snap! ■

The status lines at the bottom show the active command, the drawing level and the attributes currently in effect.



Death and taxes

Susan Morgan of SoftView isn't afraid of either

BY CLAIR WHITMER
MacWEEK Staff

CAMARILLO, Calif. — The president of SoftView Inc. is wearing a conservative navy-blue business suit straight out of a dress-for-success manual. Her short, salt-and-pepper hair denotes pure professionalism. But in her mind, Susan Morgan is outfitted in a skydiving suit.

Morgan is the president and chief promoter of SoftView of Camarillo, Calif. She also is an aficionado of high-risk sports. In addition to sky diving, Morgan likes to ride motorcycles and hang glide.

SoftView is a company that Macintosh owners remember most easily around tax time. The company's name and the name of its No. 1 product, MacInTax, sound very soothing to lots of users frazzled by the combination of April 15 and their finances.

SoftView started providing this kind of comfort when Susan Morgan and her husband, Michael, quit their jobs in the aerospace industry and launched into the newborn Macintosh market with their stand-alone tax preparation program.

For a woman who had already survived more than 100 sky jumps, it probably didn't seem like such a perilous thing to do. In fact, she said the "Wild West" atmosphere of that era of the personal computer industry drew her to it like a magnet.

"To be an entrepreneur, that's a risk. You have to believe that somehow you're going to find where the next dollar will come from. Just like when you jump out of an airplane, you have to believe the chute is going to open.

"You have to really like the feeling of your body flinging through the air," Susan said, with a laugh that implies she definitely enjoys that feeling.

The couple got involved with the Macintosh in 1984 when Susan became pregnant with their second child. Maternity benefit checks were mistakenly issued by both her employer and the insurance company, leaving the Morgans with $4,000 extra.

By the time the company discovered the error, a Mac had found its way from a computer retailer into the couple's home. (Susan hastens to add that she later paid back the "non-interest loan.") Once the computer was in their hands, it didn't take the Morgans long to start generating a long list of "Mac ideas."

"This thing was selling like hot cakes, and there wasn't any software for it. And that was an opportunity as far as I was concerned," she said.

Both of the Morgans were well-qualified hackers. They met when Susan joined a programming team for avionics software at Technology Service Corp. in Santa Monica, Calif.

Michael took a leave of absence from work to develop the idea that eventually became MacInTax. When the time came to return to his job, the program wasn't finished and Michael had almost given up on the project. But then he showed his wife what he had done so far.

"I looked at it and I said to Michael, 'This is way too good. You're not going back to work. I'll get the money. I don't know where, I don't know how, but I will,'" Susan said.

That was the beginning of SoftView.

Now Susan says proudly that her company owns the Mac market in stand-alone tax programs, with an expected $3 million to $4 million in sales for next year.

SoftView also is developing a generic forms application, the details of which are still under wraps. But, Susan said with characteristic pride, "it's revolutionary."

The confidence that leads her to make such statements also prompted her to take a public stand recently against what she termed unethical business practices by Claris Corp. executives.

She charged that the business and technical plans she had discussed confidentially with Apple executives were taken with them when they joined Claris, Apple's software spinoff. Now Claris plans to compete directly with SoftView in the electronic forms market, Susan said.

She said other companies have had similar concerns but have avoided being vocal because they fear repercussions from Apple. "I know my way around pretty well, so I'm not afraid," she said.

In the future, Susan plans to learn how to fly a plane. Until then, she seems to get plenty of thrills out of piloting her company. ■

CAMILLE GOOD

> "Just like when you jump out of an airplane, you have to believe the chute is going to open."
>
> **SUSAN MORGAN, SoftView Inc.**

Solutions' Evslin took the long road to the Mac

BY EMILY BROWER
MacWEEK Staff

MONTPELIER, Vt. — Software publishing is full of politics, but there are very few politicians who also publish software.

In fact, Tom Evslin, president and founder of Macintosh software developer Solutions Inc. of Montpelier, Vt., may be the only hacker who has held office as a political appointee.

Tom Evslin moved from mainframes to micros via politics.

CHAZZ SUTPHEN

Evslin served one term as secretary of transportation under Vermont's Gov. Richard Snelling.

"If you want to, it's easy to affect politics in Vermont," Evslin said with a smile.

Evslin's involvement with local politics began after moving himself and his company to Montpelier from New York City in 1971. An avid skier, his original motivation for relocation was to be closer to the ski slopes.

While continuing to write mainframe applications for banks and insurance companies, Evslin championed a 1977 federal lawsuit for the town of Worcester, Mass. The town had been overlooked for a local public works program sponsored by the federal government and its application for a grant had been turned down because of a computer error that Evslin uncovered.

Evslin helped win the case with evidence from federal computer tapes accessed through the Freedom of Information Act and earned himself a reputation as a champion of local causes. When Gov. Snelling began looking for a secretary of transportation in 1981, he wanted someone who could talk numbers with the engineers, red tape with the federal government and politics with the politicians. Evslin was the likely choice.

"When I accepted the appointment," said Evslin, "I had no idea how different the experience would be from my previous work. All of a sudden I was responsible for the regulation of nine airports, two railroads, 1,200 employees, 3,000 miles of state road and no computers."

Ironically, it was this two-year leave from programming that redirected Evslin's career from mainframe programming to microcomputers. Using money allocated for typewriters, Evslin purchased several Tandy Model IIs to help untangle the complicated schedules and budgets of the transportation department.

"As a user, I saw that all the action and excitement of the future was in micros," Evslin said.

When his term was up in 1982, Evslin went back to Solutions and began writing utilities for VisiCalc that incorporated data from the Dow Jones News Service. The products were good enough to draw the attention of Dow Jones, which approached Evslin with proposals for several new products. Among them was an opportunity to write a program for a new computer from Apple called the Macintosh.

"This was back in early '83, and not many people were programming for this new computer. Bill Dunn at Dow Jones asked me to write some software for the Mac and I said 'yes,' not knowing how difficult it would be," Evslin said.

Solutions became more involved in Macintosh development over the next few years. Experiments with combining Macintosh graphics and communications software resulted in the creation of Glue, an application that smooths electronic transmission of non-text and graphic documents. Glue also allows users to view and print documents created with applications they don't have. The program was licensed to Dow Jones as an integral part of its interactive communications package, Desktop Express.

Evslin said he plans to continue developing communications programs for the Macintosh. His next product, MacFax, is a background facsimile application that works with MultiFinder and Apple's fax modem, AppleFax. The close ties that he has developed with Apple show that Evslin is still adept at the politics of software development. With Glue, SuperGlue and MacFax, he is well on his way to winning a large share of the Macintosh communications market. ■

LIGHTSPEED

Continued from Page 1

"This (24-bit color) will make our system much more attractive for professional graphic artists and advertising agencies," said Tony Gilmore, Lightspeed's national sales manager..

Like MacDraw, the Color Page Layout software is an object-based system that allows the user to create rectangles, boxes and circles. Multiple color images can be scanned in as individual files and layered. Snap-to grids and rulers allow designing to exact specifications of, for example, advertisements or magazine pages. Scanned-in images can be cropped, enlarged and reduced to fit a page design.

The system was originally a port of the company's Sun workstation-based system when shown last March at the Seybold Publishing Conference in Beverly Hills, Calif.

Since then, the Color Page Layout software has gone through a major rewrite, said Jim Stoneham, one of the system's developers. "This is a color page-layout system specifically for the Mac II — not a port of the software that runs on the Sun workstation," he said.

An available turnkey system, priced at about $17,000, includes Lightspeed's Color Page Layout software, a Mac II with 5 Mbytes of memory, a 40-Mbyte hard disk and a SuperMac Spectrum color monitor with resolution of 1,024 by 1,024 pixels. The system supports 8 bits of color for simultaneous display of 256 colors from a palette of 16.7 million colors.

An optional color scanner with 300 dot-per-inch (dpi) resolution from Howtek of Hudson, N.H., and a 300-dpi color thermal transfer printer from Mitsubishi, of Torrance, Calif., are available for $9,500 and $10,000, respectively.

"When QuickDraw support is available for 24-bit color, we will support it. Because we are hardware-independent, we will be able to support a number of color frame buffers for the Mac II," Gilmore said.

Eight Bitstream fonts, four Dutch (similar to Times Roman) and four Swiss (similar to Helvetica) come with the Color Page Layout software. Fonts from Cambridge, Mass.-based Bitstream Inc.'s entire library are available. ■

FALLON

Continued from Page 1

scheduled to be released by the end of the year for less than $500 each, were a good idea that came late.

"Why use [Acknowledge and Acknowledge Pro] when some of us have comparable systems?" asked Russell Chatham, division director at Federal Express in Memphis, Tenn., which since June has used AppleLine 3270 File Transfer software on 400 Macs for packet data file transfer, spreadsheets and automated databases.

In June, Apple officials confirmed reports that it was developing Acknowledge and Acknowledge Pro to eliminate the need for Mac users to learn mainframe commands.

Users like Seafirst Bank in Seattle, however, already had developed in-house connections that made Acknowledge and Acknowledge Pro obsolete.

Seafirst has connected approximately 2,600 Macs to its mainframes with AppleLine, 3270 gateway software from Apple, in-house communications programs and a communications controller from Digital Communications Associates of Alpharetta, Ga., according to Seafirst.

But the links are application specific, users assert. Steve Keese, a systems strategy consultant with John Hancock Co. of Boston, said he is looking forward to a single solution that can be configured for linking Macs to any mainframe application or on-line service.

John DuBois, senior technical adviser for Seafirst, said he talked to Apple about the project in August, but Seafirst wasn't interested. ■

ROM

Continued from Page 1

National Semiconductor recently announced a 16-Mbyte board for the Mac II, but because of problems in the Mac II's handling of NuBus cards, the board has been inoperative. One graphics board developer said, "The bug was found by National Semi when the company ran into address (memory) problems with its new 16-Mbyte (memory expansion) board."

The technical memo Apple circulated last month reads: "A problem has been recognized in the Macintosh II's handling of NuBus cards.

"Simply stated, the problem is that the Slot Manager runs in 24-bit mode when it should be running in 32-bit mode. This causes the Slot Manager to ignore cards which need more than 1 Mbyte of address space."

Dealers will automatically install the new ROMs whenever a Mac II is taken in for service or upgrade, the memo said. The change in the Mac II ROM will allow the Slot Manager to run in 32-bit mode.

With the upgraded ROMs, all cards requiring more than 1 Mbyte of address space will be "correctly recognized and initialized during the boot process," allowing the Mac II to exploit memory boards such as the 16-Mbyte National Semiconductor memory and graphics video boards in development from RasterOps of Cupertino, Calif.

Apple is writing a small application program for developers to ship to customers with their Mac II boards so customers can check the release date and version of their ROM.

Apple has advised developers to ship the program with their Mac II boards and "let [customers] know which ROM date would be needed to run your card," Apple's memo said.

The technical memo also states that part of the Mac II ROM "will be patched without rebuilding the entire ROM — meaning no other section of the ROM will be affected in any other way. This [patch] doesn't change or affect the ROM's contents in any way." ■

INTERMAIL

Continued from Page 1

paper memos and phone messages and allows efficient transfer of documents between users.

"With InterMail, we believe we have acquired the finest electronic-mail program for the Mac. Its open architecture and design will allow us to enhance the program with the connectivity solutions in the Mac environment," said Jon Shirley, president and chief operating officer of Microsoft of Redmond, Wash.

InterMail, which will be renamed Microsoft Mail in early December, is the first product released by Microsoft's newly formed Integrated Office Systems Group.

The group plans to develop enhancements and new products for InterMail, according to John Morey, group products manager for Integrated Office Systems.

"Microsoft has a desire to be in the PC marketplace with an electronic-mail product for the majority of users. We would like to develop a PC mail product that will run on popular networks like AppleLink," Morey said.

The acquisition has strategic significance for Microsoft, according to Rick Sherlund, an analyst at Goldman Sachs, an investment bank in New York. "Microsoft underscores its commitment to the Apple market with this purchase. Now that it has electronic mail for the Macintosh, you can expect Microsoft to fill in the missing piece for the PC," he said.

Nick Holt, one of InterMail's original developers, and Internet have signed separate contracts to work on new product developments with Microsoft. Contrary to published reports, InterMail was developed by Internet, not by Top Express, the British company for which Holt once worked.

"The net effect is that the same team that spawned InterMail will help Microsoft make InterMail an industry standard. Microsoft has picked up all released and unreleased technology from us," said Steve Ullman, president and founder of Internet.

"Microsoft will be a major player, if not the major player, in office automation for Mac and PC markets. With InterMail, they will stay a generation ahead of all other electronic-mail products. Microsoft's money and resources can accomplish in nine months what would have taken us two to two and one-half years to complete," said Ullman.

Internet will continue to design and market network systems and vertical market software for the Mac. The company's products include a turnkey, multi-user networked system called Legal Aide for legal office management and billing, and Lifeline, a blood donor management system. ■

APPLE

Continued from Page 1

chairman, previously told analysts the company would likely earn between $725 million and $750 million.

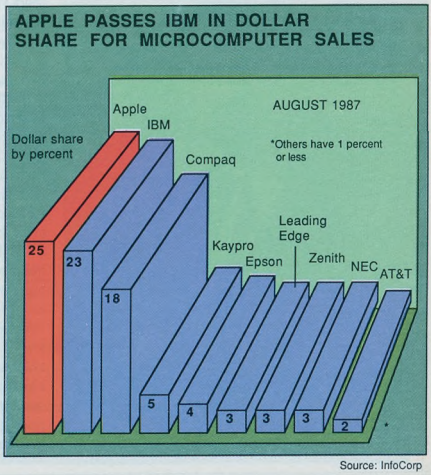
For the 1987 fiscal year ended Sept. 30, Apple shattered fiscal 1986 sales marks by 40 percent. For the year, Apple's sales were reported at $2.66 billion, up from $1.9 billion a year ago. Apple earnings were 54 cents per share in the fourth quarter, compared with 25 cents per share a year ago. For the full year, Apple earned $1.65 per share, compared with $1.20 a year ago.

Apple is on a tremendous roll, Sculley said in a statement last week. "Our new products are shipping in record numbers. The Macintosh family of products is shipping at its highest level ever," he said.

There is more good news for Apple to crow about. According to Info-Corp, a Cupertino, Calif., market research firm, Apple surpassed IBM Corp. of Armonk, N.Y., in microcomputer market share in August — 25 percent to 23 percent, respectively. Through August 1987, however, IBM enjoyed a narrow lead of 27 percent to 25 percent — which may not hold up through the remainder of the calendar year.

"That's very impressive for a company that two years ago people thought would go the way of the dinosaur," said analyst Peter Rogers of Mabon Nugent, a New York investment bank. "I think we'll continue to see solid growth from Apple, from 30 percent to 35 percent in 1988."

Rogers predicts Apple will earn $3.5 billion in fiscal 1988, which began Oct. 1. Apple did not release any fiscal 1988 predictions. ■



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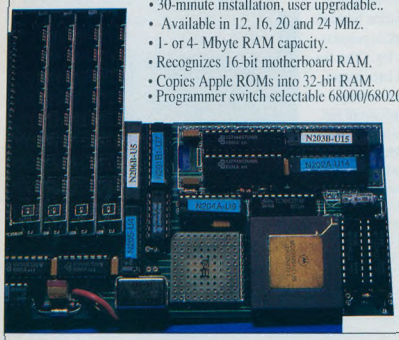

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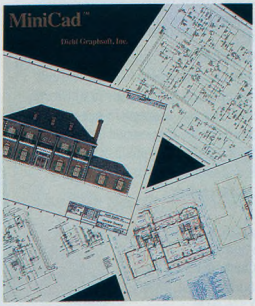

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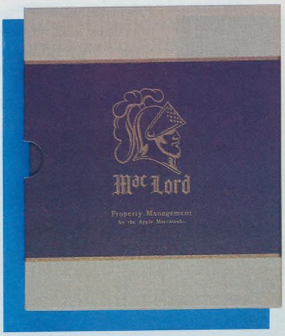

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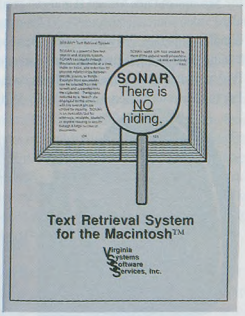

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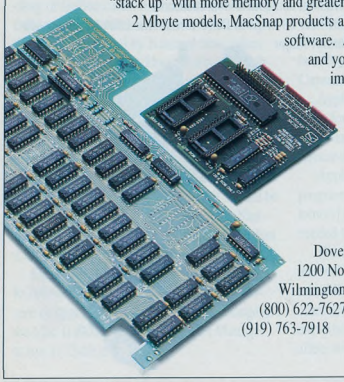

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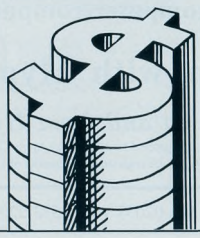

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MAC THE KNIFE

An apple for the teacher, or grade inflation department: At the announcement of the Borland-Apple comarketing deal, Philippe Kahn used an academic record keeping example to demo Reflex Plus. He entered straight A's for himself. For "student" John Sculley, who was on hand to bless Borland's reborn interest in the Mac, Philippe entered A+. Now that's really Apple polishing.

Microsoft has been full of surprises lately. Go down to your local stationers and ask for a copy of the 1988 edition of the "Microsoft Computer Desk Reference & Appointment Calendar." You know the one. It's got the usual international time chart and currency conversion tables in addition to the pages for noting the passing of your life. But the real fun is at the end of the book. That's where you'll find command references for all the popular software, everything from DisplayWrite to XyWrite, from dBASE to RBASE, from MS-DOS to Xenix. (They don't call this The Software Pirate's Bible for nothing).

The interest to Mac fanatics here is that it includes a reference chart for two versions of Excel: the one for the PC and the one that Microsoft promised for release later this year. Not the announced 1.05, but the 2.0 that will have parity with the PC version. Vapor docs?

Redmond has at least one other surprise in store. Word is that Microsoft Write, a competitor to MacWrite, is on its way, perhaps even in time for Santa.

That other big Northwest employer, Tektronix, has been taking its 4693D color printer (snappy name, no?) on the road lately. Last week Tektronix was making its pitch to corporate types in the Northeast. One Knife informer was impressed with the unit, but he was even more intrigued by the heavy hints that a PostScript version is in the works. With so many Mac addicts within Tektronix, who could doubt it? Another source says that one of the PostScript clone developers could be the big winner in this deal. Seems Tektronix wants to come out with a model that's price competitive with the QMS offering, and paying a lower license fee for the PostScript interpreter is the first step in reaching that goal.

Silicon Beach also has a new offering in the works: software, code name Focus, to do gray-scale image processing. Like lots of other folks with products in development, Silicon Beach is aiming for a January San Francisco Mac Expo release date. The Knife also hears that Focus has a "killer" feature that could be a product in its own right.

A Kaleidoscope of applications

Aldus' Kaleidoscope (formerly Masterpiece) is finally in the beta-test phase. If you're looking for Illustrator, MacDraw and MacPaint all in one package, this one may be worth waiting for.

AST insiders were recently overheard reacting to Quadram's announced plan for a Mac II '386 card. "Good luck." Seems they had quite a time getting the '286 to work, and that was with the help of Phoenix Technologies, whom they have under exclusive contract for the project. Without Phoenix, Quadram may have a tough row to hoe. As for AST, it's spending all its energies trying to squeeze Mac286 onto just one card.

The Mac was in the spotlight at last week's Software Publishers Association conference in Cambridge. Ashton-Tate's chief, Ed Esber, surprised the assembled developers by predicting that the Macintosh "could become the dominant corporate platform."

Lotus' head salesman, Steve Crummey, endured some hoots when he mentioned the company's new integrated package, Modern Jazz. "We spent a lot of money advertising the Jazz name, and we wanted to take advantage of that," he explained.

Appearing on a Macintosh panel discussion, Claris' Bill Campbell avoided direct questions about new products and acquisitions. His biggest revelation was that Claris' employees are now on a separate payroll from Apple's. Except for product connections, the separation will be complete by January, he said. Then Campbell departed for Providence, R.I., home base of a certain forms software developer.

QuickRacing, or all's well that findswell: While ACIUS has recently become famous for its model-racing expertise (ACIUS will probably send you a souvenir photo if you ask nicely), at least one programmer at Working Software works out with real Formula 5 racing iron. No wonder its next product is called Quick Letter.

* * *

A tip can be gone in the twinkling of an eye, but a MacWEEK mug is forever. Contact me at (415) 882-7370 or MCI (MactheKnife). ■

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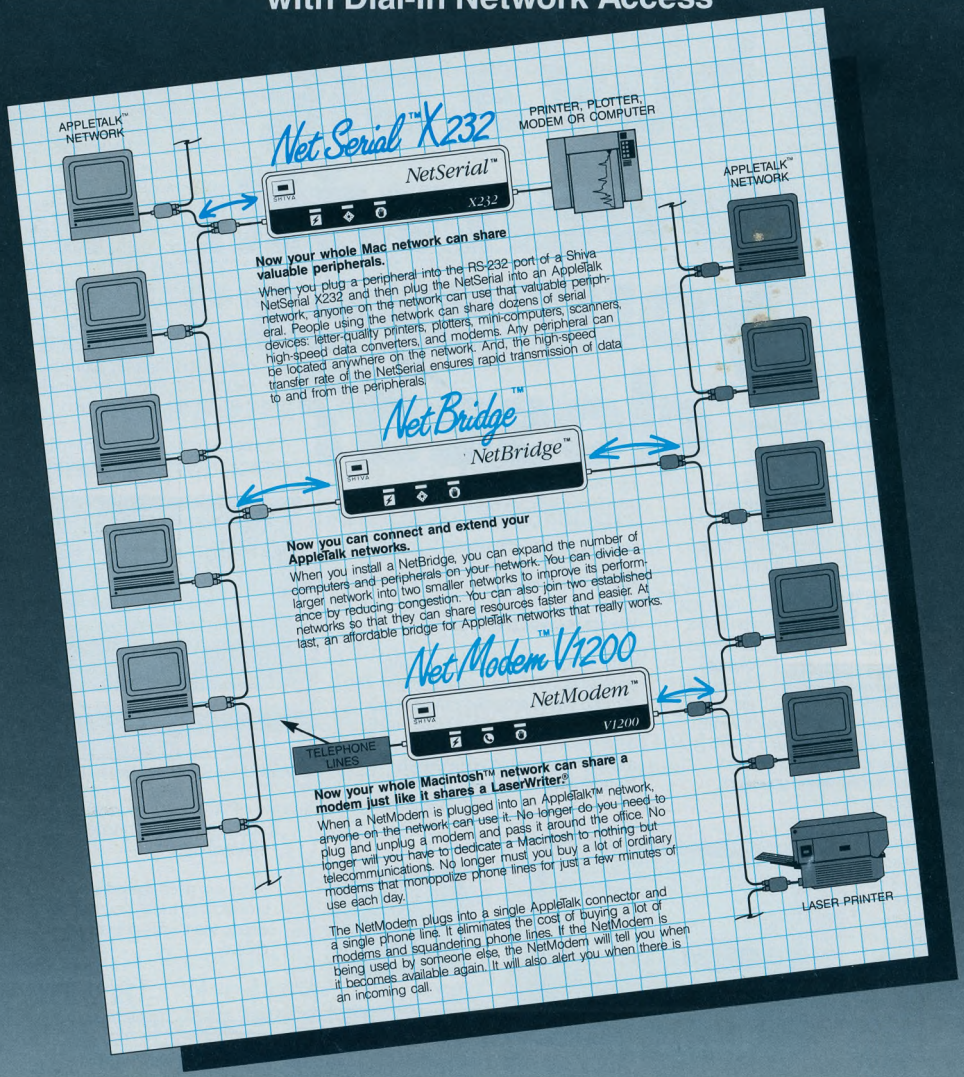
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When you plug a peripheral into the RS-232 port of a Shiva NetSerial X232 and then plug the NetSerial into an AppleTalk network, anyone on the network can use that valuable peripheral. People using the network can share dozens of serial devices: letter-quality printers, plotters, mini-computers, scanners, high-speed data converters, and modems. Any peripheral can be located anywhere on the network. And, the high-speed transfer rate of the NetSerial ensures rapid transmission of data to and from the peripherals.
NetBridge™
NetBridge™
Now you can connect and extend your AppleTalk networks.
When you install a NetBridge, you can expand the number of computers and peripherals on your network. You can divide a larger network into two smaller networks to improve its performance by reducing congestion. You can also join two established networks so that they can share resources faster and easier. At last, an affordable bridge for AppleTalk networks that really works.
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TELEPHONE LINES
Now your whole Macintosh™ network can share a modem just like it shares a LaserWriter®.
When a NetModem is plugged into an AppleTalk™ network, anyone on the network can use it. No longer do you need to plug and unplug a modem and pass it around the office. No longer will you have to dedicate a Macintosh to nothing but telecommunications. No longer must you buy a lot of ordinary modems that monopolize phone lines for just a few minutes of use each day.
The NetModem plugs into a single AppleTalk connector and a single phone line. It eliminates the cost of buying a lot of modems and squandering phone lines. If the NetModem is being used by someone else, the NetModem will tell you when it becomes available again. It will also alert you when there is an incoming call.
LASER PRINTER

*Dial-In Network Access allows anyone with a Macintosh and an ordinary modem to become a "node" on an AppleTalk network over the phone line. This remote node operation means you can dial-up the NetModem or NetSerial-with-modem from your home and become part of the network in your office.

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THE WORKSTATION NEWSWEEKLY

MacWEEK

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Death and taxes
Susan Morgan of SoftView is not afraid of either
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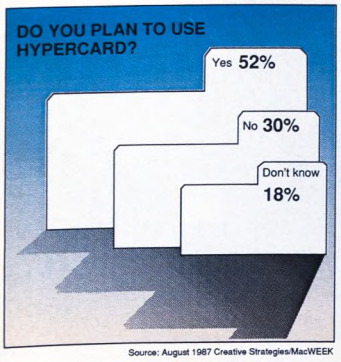
ZOOM IN



Source: August 1987 Creative Strategies/MacWEEK

Microsoft targets E-mail

BY EMILY BROWER
MacWEEK Staff

REDMOND, Wash. — Electronic-mail standards are still several years away, but giants Microsoft Corp. and Symantec Corp. have already positioned themselves in the race to get there first.

Microsoft's acquisition last week of InterMail, an E-mail program for the Mac, marks the software powerhouse's entry into the burgeoning office automation market. Think Technologies Inc., developer of InBox, the only other E-mail product for the Mac, merged with Symantec of Cupertino, Calif., earlier this month.

E-mail programs enable computers on a local-area network to send messages and files among themselves. Installing an E-mail system increases office productivity by eliminating

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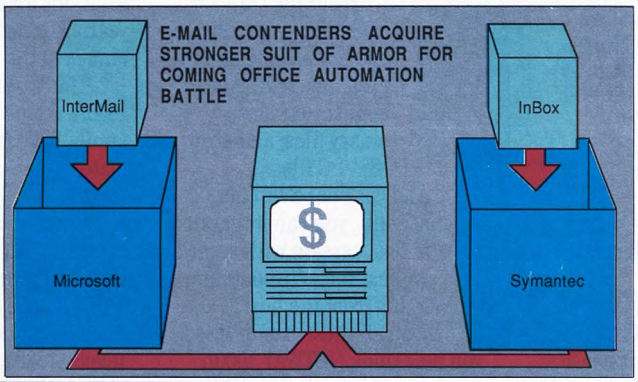

Apple gives up on Fallon project

BY JON SWARTZ
MacWEEK Staff

CUPERTINO, Calif. — Apple has ceased development of Acknowledge and Acknowledge Pro, the Macintosh-to-IBM mainframe communications programs Apple developed and targeted at corporate users amid much fanfare this summer.

Bill Brown, Apple's manager of network hardware, said development of the programs, code-named "Fallon," stopped in September.

Like the willowy heroine in the "Dynasty" television series after which the project was named, "Fallon" died prematurely. (Hollywood, however, had a happy ending for the fictional "Fallon" by resurrecting the character as only soap operas can.)

Apple's Fallon wasn't as fortunate.

"Users evidently weren't as interested as Apple thought they would be," said Mike Millikin, senior editor at Patricia Seybold's Office Computing Group in Boston. "Apple may have competed with its own third-party vendors too closely."

Apple users said the programs, which were

See FALLON, Page 34

Lightspeed Color Page Layout

BY ABIGAIL CHRISTOPHER
MacWEEK Staff

BOSTON — Lightspeed Inc. of Boston will announce its Color Page Layout system for the Mac II at the Corporate Electronic Publishing Systems conference to be held here next week.

See LIGHTSPEED, Page 34

MARK ALCAREZ

ROM upgrade to fix Mac II bug

BY ABIGAIL CHRISTOPHER
MacWEEK Staff

CUPERTINO, Calif. — Apple will release an upgrade to the Mac II ROM to correct a bug that prevents the computer from recognizing expansion boards that contain more than 1 Mbyte of memory.

The upgrade will be built into new Mac IIs "as soon as possible," according to an official Apple technical memo, "Designing cards and drivers for the Macintosh II and Macintosh SE," that was sent to developers.

As an interim solution, Apple has helped National Semiconductor of San Jose, Calif., develop RAM disk software that allows the use of the 16-Mbyte board on the Mac II. When the new Mac II ROMs are available, National Semiconductor will ship a new version of the software to users.

"The ROM in the Mac II restricts our use of the Slot Manager," said Jim Cooper, National Semiconductor's chief engineer of Apple products. "The Slot Manager is part of the Toolbox that surveys the NuBus boards in the Mac II's slots and recognizes which boards are being used. We've had to take out a few features that will be added when Apple provides the new Mac II ROMs," he said.

See ROM, Page 34

Apple posts record year on strong final quarter

BY RUSTY WESTON
MacWEEK Staff

CUPERTINO, Calif. — The "repositioning" of Apple as the top company in the microcomputer marketplace is complete and the company has the broken records to prove it.

Anyone who heard of Apple's ascendancy in corporate America might have anticipated record sales this year. Every Wall Street analyst foresaw a sharp rise in revenue, but few guessed that Apple would report revenue of $786.4 million in its fourth quarter ended Sept. 30.

That amount represents a 54 percent increase over the same quarter a year ago, according to figures released by Apple last week. John Sculley, Apple CEO, president and

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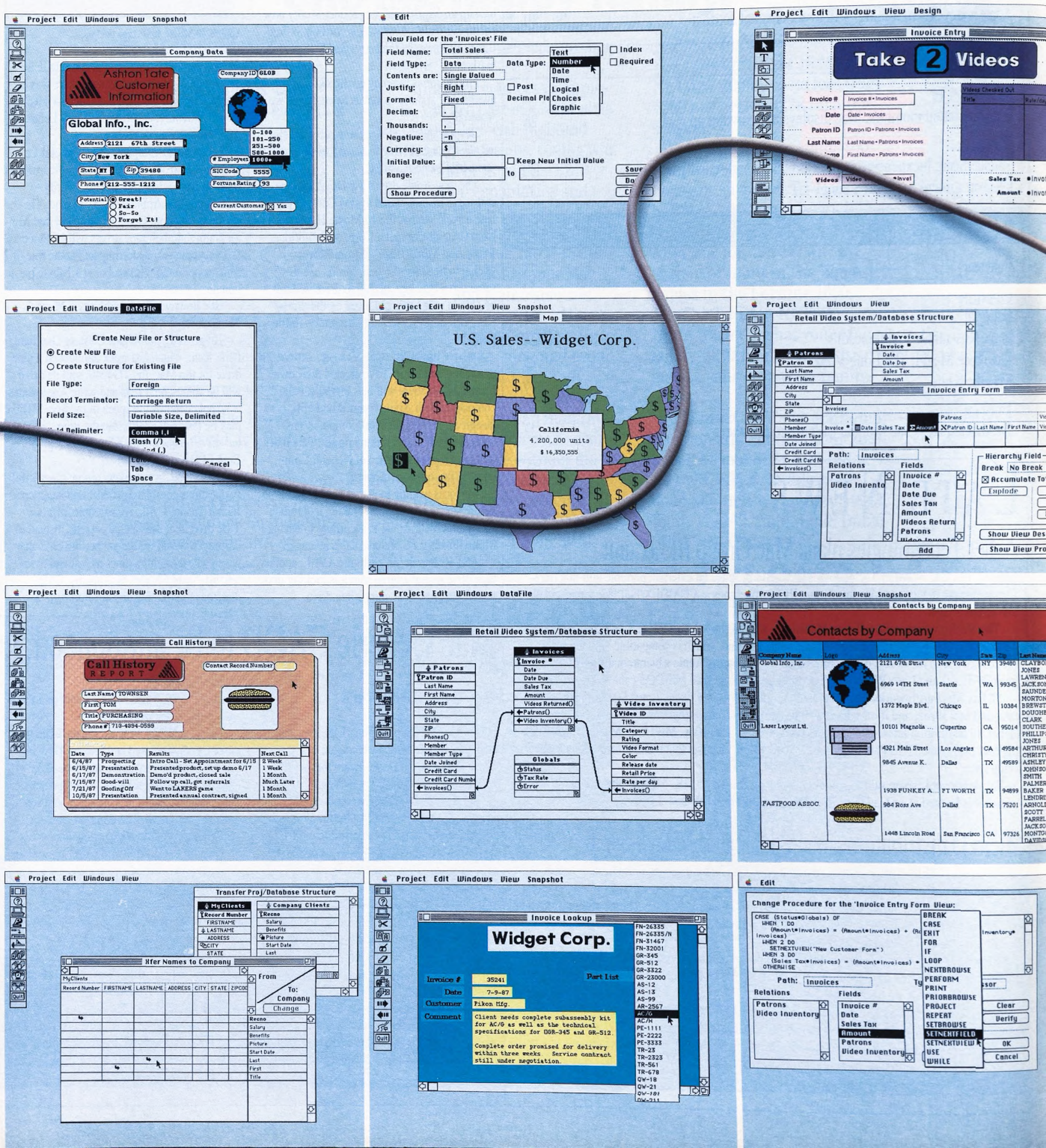

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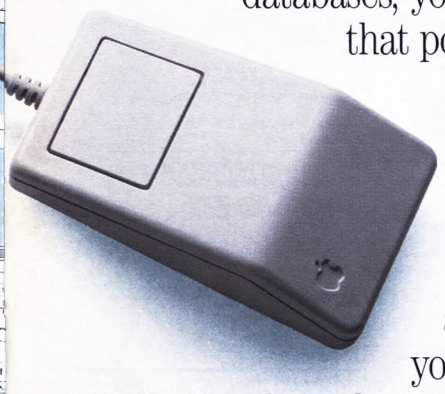

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Volvo workers nix Apple contract

Swedish autoworkers demand European vendor

BY JON SWARTZ
MacWEEK Staff

GOTHENBERG, Sweden — AB Volvo averted a crippling autoworkers strike last month when it bypassed Apple in favor of Ing. C. Olivetti SPA for a multimillion-dollar computer contract.

Union autoworkers at Volvo threatened to strike if the three-year, $40 million personal computer contract went to Apple instead of an Olivetti-led consortium that included LM Ericsson Telephone Co. of Stockholm, Sweden.

Citing nationalism, approximately 5,000 members of the plant's bus and truck division said they would strike if Olivetti of Milan, Italy, didn't receive the PC contract.

But sources say several managers at Volvo insisted on using Macintosh II workstations.

The four-month impasse was resolved when Volvo chose Olivetti's bid while ordering a handful of Mac IIs for the managers who supported Apple equipment, sources said.

Volvo is revamping factory automation networks at its bus and truck division here to replace an Ericsson IBM-compatible 3278 terminal network linking factories, administrative offices and dealers.

Olivetti is supplying 20,000 to 30,000 IBM PC- and AT-compatible units linked to at least five IBM mainframes at Europe's largest IBM computer installation.

Meanwhile, a separate three-year, $10 million contract for local-area network (LAN) software and hardware was awarded in April to Fox Research Inc. of Dayton, Ohio, for its 10-Net baseband twisted-pair LAN.

The Volvo workers, however, were not upset with the selection of Fox because Fox has many European installations and marketing alliances.

"The autoworkers were adamant that a European vendor handle the PCs," said Flemming Ostergaard, president of The PolyData Group, the Copenhagen, Denmark, reseller of Fox products. "But there were some Apple fans at Volvo who insisted on Macs."

Volvo and Apple officials refused to comment.

Volvo had tested network operating system software from 3Com Corp. of Mountain View, Calif., and Novell Inc. of Provo, Utah, before choosing 10-Net.

A Fox spokeswoman said Volvo will purchase 1,100 LANs.

IBM, overlooked for both the PC and networking contracts, will supply System/38 computers for the new network. ■

Mac E-mail system from Western Union

BY EMILY BROWER
MacWEEK Staff

UPPER SADDLE RIVER, N.J. — Western Union Corp. has unveiled plans to release a Macintosh version of its integrated communications package, called Instant Mail Manager.

Instant Mail Manager handles the transfer of binary files, or formatted documents, over EasyLink, Western Union's electronic mail service. Mailgrams, telegrams, telexes and other EasyLink messages can be sent using IMM.

The program was originally developed by Kensington Microware of New York City to connect PCs with EasyLink and facilitate transfer of formatted documents over the network. EasyLink, which handles almost 40 percent of the E-mail traffic in the United States, dominates the domestic E-mail market.

Some analysts are skeptical about the significance of Western Union's involvement in the Mac market. Recent financial troubles have cast a shadow over the company's health, and although the E-mail segment of Western Union's business is thriving, it accounts for only 7 percent of total revenues. However, Peter Hirshberg, product manager of desktop communications at Apple, said providing links between the Mac and other machines can only be good for the market. ■

HP delays release of gray-scale scanner until February

GREELEY, Colo. — Hewlett-Packard Co. has delayed release of the Mac version of its ScanJet gray-scale scanner until February, citing the need for further testing.

Recently, however, Hewlett-Packard listed the scanner as ready to ship in a house-product magazine.

The 16-level gray-scale, flatbed scanner already works with IBM and Hewlett-Packard computers. It would connect to a Mac via a SCSI adapter and Mac interface software.

"It will be available for shipment in February," said Liz Shoeman, a spokeswoman for Hewlett-Packard's Greeley Hardcopy Operation. "We feel we want to take the extra time to make sure that any known problems have been resolved."

Shoeman said Hewlett-Packard hasn't issued a statement indicating whether the delay is attributed to software or hardware.

But, Shoeman said, "We need to implement all the features and take the time to test it and make sure no problems are there."

The HP9190A is rated at 75- to 300-dpi resolution. It retails for $1,495, with an additional $595 for the Mac interface, including a SCSI cable and software. ■

Apple targets home business market

BY RUSTY WESTON
MacWEEK Staff

CUPERTINO, Calif. — In the age of work-at-home entrepreneurs, Apple is poised to become the home computer of choice.

As part of a new campaign, Apple's first television commercials showing the Macintosh in a home will air this fall.

"The home business market is a big, new market for us," said Bill Larson, Apple's group manager of consumer marketing.

Ironically, Apple already outsells its competition in the home market it previously has pursued without fanfare. Larson said: "We didn't want to undermine Apple's success in the business market, which is critical to Apple's [overall] success. But fiscal '88 will be our year of experimentation with the personal office umbrella."

Apple also is looking to reach home workers in shopping malls in more than 35 cities this week with its second annual Open House touring show.

During each three-day show, kiosks will run a 20-minute videotape tailored to the first-time buyer, offering testimonials from 25 desktop publishers, education software users, home consumers, small-business owners and artists.

The potential of the home market is mind-boggling to a marketing executive. Twenty-three million Americans work at home in 16 million households, according to the Internal Revenue Service.

According to Apple, only 25 percent of those households own computers.

Each month, 30,000 new businesses are launched in the United States, with the majority centered at home, according to statistics from the U.S. Department of Labor.

Furthermore, these home businesses spend an average of $4,777 to equip their home offices.

Home executives are twice as likely as the general population to buy a computer and they spend 50 percent more on peripherals and software than other users, according to Apple.

"The reality of the home PC market is that the computer is used more for working at home than it is for recipes," said securities analyst Mike Orsak of Robertson, Colman & Stephens, a San Francisco investment bank.

"Apple is right in targeting this market; they aren't trying to sell to a market that doesn't exist," he said.

Apple also is taking steps to provide user support for this burgeoning class of home users, according to Larson.

"I think you'll see us making announcements about distributed support for home workers and consumer business," he said. "That is an issue and we're actively working on a solution." ■

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MacWEEK (ISSN 0892-8118) is published weekly, except for two weeks at year-end, by MacWEEK Inc. 525 Brannan St., San Francisco, Calif. 94107, a subsidiary of Patch Communications, 5211 S. Washington Ave., Titusville, Fla. 32780. Single copy price including postage: $5. One-year subscription rates: U.S. $75, Canada/Mexico US $150, International: US $300 (airmail). All orders must be prepaid. Subscription inquiries should be directed to the Circulation Department, 5211 S. Washington Ave., Titusville, Fla. 32780, or call (305) 269-2687. Application to mail at second-class postage rates is pending at San Francisco, Calif., and additional mailing offices.

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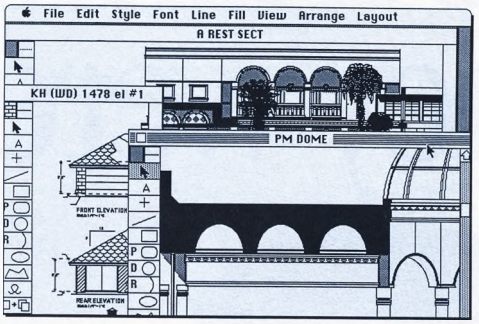
SNAPSHOTS

MacDraft upgraded to full compatibility with Mac II

CONCORD, Calif. — Innovative Data Design has announced MacDraft 1.2b, an upgrade that makes the product fully compatible with the Macintosh II.

"We had received a few complaints concerning text handling in the Mac II, and we wanted full compatibility," said Paul King, president of Innovative Data Design.

MacDraft's object-oriented approach to design and drafting is a unique departure from conventional PC-based CAD software.



Owners who registered after July 1, 1987, can receive an upgrade to the new version at no additional charge. Owners who registered before July 1 can upgrade for $25.

Innovative Data Design is located at 2280 Bates Ave., Suite A, Concord, Calif. 94520; (415) 680-6818.

FreeForm allows access to Intelligent Database Machine

HOUSTON — Mac users can access the powerful Intelligent Database Machine (IDM) by Britton Lee Inc. with FreeForm software by Products Diversified Inc.

A Mac user can retrieve a record out of a 4-Gbyte database in less than a second with an IDM link, according to Dale A. Samuelson, customer support manager for Products Diversified, a value-added reseller for Britton Lee of Los Gatos, Calif., and Apple.

The IDM is a dedicated relational database processor that can host up to 128 network connections, providing simultaneous access for up to 400 Macs using EtherTalk, Samuelson said.

The copy-protected FreeForm software resides in each Mac to provide the Mac interface. Products Diversified's smallest site license is for five Macs and costs $5,500. FreeForm will ship at the end of this month, he said.

Freeform requires a Mac with 1 Mbyte of memory and supports color on the Mac II. The company plans to provide AppleTalk support by the end of the year, according to Samuelson.

He said the biggest users of IDM are the federal government, AT&T, Boeing and NASA. The smallest configuration of the IDM is the BL300-20, with 80 Mbytes of disk storage, Ethernet access and a cartridge-tape subsystem for backup and database utilities, Samuelson said.

The IDM sells for approximately $30,000.

"IDM is the only computer that allows data-sharing betweeen multiple computer types," said Eugene C. Platt, president of Products Diversified.

The company sells 22 different computer interfaces.

Products Diversified Inc. is located at 9720 Beechnut St., Suite 406, Houston, Texas 77036; (713) 771-8357.

Attach any number of Colby monitors to a single Mac

FRESNO, Calif. — Colby Systems Corp. has developed a 12-inch monitor for the Mac 128K, 512K, Plus and SE that allows users to hook up as many monitors to one Mac as they need.

The BigTop's resolution of 512 by 342 pixels exactly matches the Mac monitor, said Charles Colby, company president. The extra size and the ability to connect multiple monitors to a single Mac make the screen useful in training situations.

The monitor is also useful as a Clipboard with other large screen monitors and is good for people with impaired vision, he said.

The monitor is $299; the adapter board costs $99.

The adapter plugs directly into the Mac motherboard and, according to Colby, full installation takes about five minutes after opening the box.

The board plugs from the power supply to the motherboard. A coaxial video cable runs from the video card through the security port.

A fan that uses direct current and is attached to the Mac with Velcro comes with each board, although the fan is not needed with the SE.

Because the fan uses direct current, it does not affect the Mac's picture, and the Velcro fastening acts as a buffer to vibration and noise, according to the company.

Colby Systems Corp. is located at 4723 N. Warren Ave., Fresno, Calif. 93705; (209) 222-4985.

Inset Systems' HiJaak converts incompatible graphics formats

DANBURY, Conn. — Inset Systems Inc. has released HiJaak, a graphics conversion and capture utility that can merge usually incompatible graphics files with other software applications.

HiJaak will convert graphics files created on a Macintosh or Commodore Amiga into an IBM PC-compatible format. HiJaak also allows information to be shared among different graphics packages and computers.

HiJaak is composed of two separate modules. One converts graphics file formats with full resolution; the other captures data from the screen or from Hewlett-Packard LaserJet output for images larger than the screen. HiJaak's "Convert" facility provides 66 file-transaction paths for file formats: Amiga, CompuServe GIF, HP LaserJet images, Lotus PIC, MacPaint, PC Paintbrush, PostScript and Scanner TIFF. These file formats also can be merged into word-processing application programs using the InSet program. HiJaak retails for $89 as a stand-alone product and is available as a package with InSet 2.1 for $149.

Inset Systems also has released the first volume of an eventual series of symbol libraries. The symbols include generic icons, drop capital letters and Greek symbols. The library sells for $30.

Inset Systems is located at 12 Mill Plain Road, Danbury, Conn. 06811; (203) 794-0396.

GCC offers more fonts for PLP; lowers hard disk prices

CAMBRIDGE, Mass. — General Computer Corp. has boosted the size of the type library for its Personal LaserPrinter (PLP) with 16 additional fonts.

The set of fonts, called Fonts Plus, will give PLP owners versions of all the fonts contained in the Apple LaserWriter Plus and two additional headline fonts. Fonts Plus is priced at $299 and will ship this month, the company said.

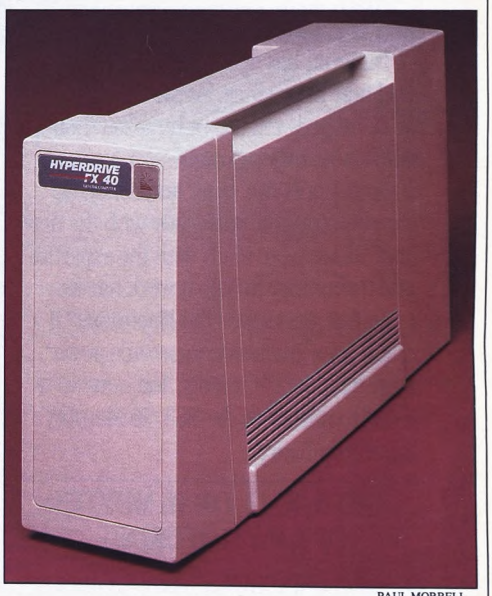
The Personal LaserPrinter is a 300-dpi laser printer that uses Apple's QuickDraw graphics language as the page-description language rather than Adobe's PostScript.

The basic PLP comes with versions of all the fonts available in the LaserWriter, including Zapf Calligraphic and Swiss Narrow fonts (versions of Palatino and Helvetica narrow).

Fonts Plus includes ITC Avant Garde, ITC Bookman, Century Schoolbook, ITC Zapf Dingbats and the headline fonts Futura Extra Black and Cooper Black. All PLP fonts are mathematically defined outline fonts developed by Bitstream Inc. Individual characters of the outline fonts may be scaled and rotated to any size and angle at 300-dpi resolution.

In other developments, General Computer Corp. has reduced the price of its entire Macintosh line of hard-disk drives by 12 percent to 22 percent. The FX/20, an external 20-Mbyte hard-disk drive, has dropped from $1,199 to $999; the 40-Mbyte FX/40 from $1,799 to $1,399. The FI/40, an internal drive for the Macintosh SE, has dropped from $1,599 to $1,399. The recently announced Macintosh II version of the FI/40 will ship by the end of the month for $1,199, a $200 reduction from the original price.

General Computer Corp. is located at 215 First St., Cambridge, Mass. 02142; (617) 890-8080.



PAUL MORRELL

PowerMAX keeps data safe from power failure

SAN RAFAEL, Calif. — Panamax Inc. now offers protection against power failures with the release of its PowerMAX line of backup power systems. PowerMAX protects against electrical failures, brownouts, surges, interference and overvoltage by switching the power source from AC to internal battery power. The switch typically occurs within 2 milliseconds, the company said.

PowerMAX is intended to prevent data loss and equipment damage when power fails. The user can then shut down the system or continue to work for up to 80 minutes. An alarm informs the user when the system is nearing exhaustion.The product is available in three units, the 450VA with a 300-watt capacity, the 800VA with a 600-watt capacity and the 1200 VA capable of handling a 1,000-watt load. They retail at $599, $1,099 and $1,399, respectively. All the units are U/L and CSA approved.

Panamax is located at 150 Mitchell Blvd., San Rafael, Calif. 94903; (415) 499-3900.

Read-It! makes entering text easier

BY JIRI WEISS
MacWEEK Staff

SOUTH MIAMI, Fla. — Although it may be faster to key in the occasional letter or article than to use a scanner and optical character recognition (OCR) software, a package just out from Olduvai Software Inc. promises to make the task of entering large volumes of printed data much easier.

The $299 Read-It! is able to recognize a wide variety of scanned typefaces, even typeset fonts, with an average accuracy of up to 99.5 percent, according to Juan G. Chotsourian, the company's president.

Users can teach Read-It! to read fonts — including foreign languages and mathematical notation — not included among the approximately 40 predefined type tables shipped with the program. Users teach the program an unknown font letter by letter from a printed page. When the program cannot read a letter it prompts the user to define it.

Read-It! recognizes the scanned letter by comparing its image to a bit map and other descriptive features of the character stored in a look-up table rather than merely checking such things as leading, height and character curvature, Chotsourian said.

The program will store a bit map of different-looking instances of a particular letter to improve recognition, Chotsourian said. "An 'e' or an 'a' requires about five to 10 entries for each character, while an 'f,' which is hard to mistake, usually requires only one," he said.

Existing look-up tables can be customized in a half-hour to an hour, Chotsourian said. The look-up tables allow for variations in size in the scanned font. A 12-point type table will read type 9 to 48 points in size with some training, Chotsourian said. "The program enlarges or shrinks characters automatically to the same size," he said.

Read-It! will handle ligatures, letter combinations such as "ti" and "li" that sometimes touch in proportionally spaced fonts, Chotsourian said. "The limitation is when more than two letters are touching each other," he said.

It took David Schargel, a New York-based Mac consultant, two to three hours to teach the program to read a dot-matrix text. "It will always be faster to have a secretary type in a single page of text than to scan it," he said.

The program is "for automated processing, such as reading in a whole manual, not casual processing. Once you have a good type table, it works well," Schargel said.

Jim Powell, production supervisor of Great Western Directories Inc. of Amarillo, Texas, a publisher of telephone directories, said he has used Read-It! to scan in hundreds of pages of names and phone numbers from telephone directories and computer printouts. Great Western, a beta tester for Read-It!, has decided to scan in files rather than write software to convert typesetting files to a readable format.

Because of the large sizes of scanned files, Read-It! requires a Mac with at least 1 Mbyte of RAM. But for best results, users will need 2 Mbytes or more, Chotsourian said. Read-It! takes two to three minutes to process a double-spaced page of text; and about 25 seconds on the Mac II, he said. Read-It! will work in the background with Apple's MultiFinder.

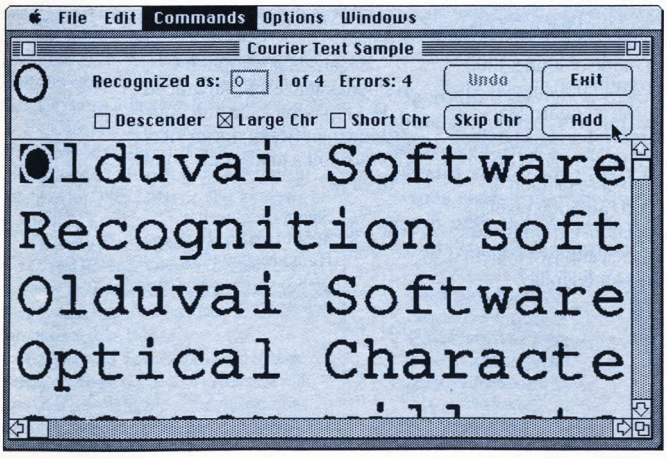
The package can read TIFF, compressed TIFF, PICT and bit-mapped images, the company said. Read-It! will work with most 300-dpi scanners, including the AST Turboscan from AST Research Inc. of Irvine, Calif.; the Abaton Scan 300 from Abaton Technology Corp. of Pleasanton, Calif; and the MS-300 from Microtek of Gardena, Calif.

A version of the package called Read-It! TF, tailored for use with the ThunderScan scanner from Thunderware Inc. of Orinda, Calif., is available for $149.

Customized versions of Read-It! will be bundled with the Image Scanner from LoDOWN of Scotts Valley, Calif., and Mac Scan from New Image Technology Inc. of Seabrook, Md., Chotsourian said.

Olduvai Software is located at 7520 Red Road, Suite A, South Miami, Fla. 33143; (305) 665-4665. ■

Read-It! recognizes a scanned letter by comparing its image to descriptive features stored in a look-up table.



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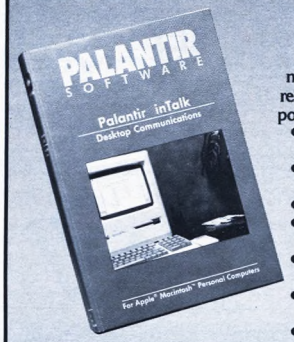

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Newspaper system coming to Mac II

BY JIRI WEISS
MacWEEK Staff

SACRAMENTO, Calif. — A professional newspaper system is being developed for the Mac II by a company that provides minicomputer-based systems for 200 newspapers worldwide, including The Wall Street Journal and The Los Angeles Times.

The Realm system from Publishing Empire, a division of System Integrators Inc. of Sacramento, Calif., includes a word processor, a spreadsheet, a page-layout program, software for creating and editing fonts and logos, and a graphics design and halftone image-processing program.

Realm runs on the company's proprietary multitasking operating system, called RING. To use Realm, Macintosh users will have to quit their Mac applications and reboot in RING, according to the company. Files can be transferred between the two systems only as ASCII files through a modem.

Publishing Empire took the unusual step of writing its own operating system three years ago because there was no good alternative, said Terry Rooker, a senior technical writer with RING research and development. "The choices were DOS and UNIX, and the UNIX file system is too fragile for the system integrity and fault tolerance we wanted," he said.

"They are presenting it as a turnkey solution for people who are dissatisfied with current desktop-publishing solutions [and] who need something with more industrial strength," said Craig Cline, Seybold Publications Inc.'s associate editor of the Seybold Report on Desktop Publishing Systems and the Seybold Report on Desktop Publishing in Malibu, Calif.

RING will automatically run a program on any free processor on the network when the user's processor is busy. Users can share peripherals and get directories of the files on the whole system. RING has its own raster image processor, called Kitchen, that uses the same description language for both the screen and printed page, giving users similar WYSIWYG results as those offered by Display PostScript, recently announced by Adobe Systems Inc. and NeXT Inc., Rooker said.

Cline gave the company high marks for paving the way to the kind of functionality all local-area networks (LANs) should offer, like the ability to get a directory from any system.

But Cline said he doubts that Publishing Empire will be able to establish RING as another standard. "It's not going to become a substitute for OS/2, LANs or other industry standards," he said.

"Proprietary has become a pejorative word," said Rooker. "DEC has a proprietary operating system. IBM has a proprietary operating system. Apple has one. New solutions sometimes require change."

Ten years ago, Seybold predicted System Integrators would not be able to compete with Atex Inc., a Bedford, Mass., newspaper system publisher, according to Rooker. But the Seybold analysts "are not always right," he said.

Realm will be easier to use than the parent company's minicomputer-based system because it includes many Macintosh interface features such as windows and pull-down menus, said Rooker.

Currently, Realm runs on Publishing Empire's own proprietary 68020 microprocessor-based workstation, the CX, but starting next year, the package will run unmodified not only on the Mac II but also on the IBM PS/2 and Compaq 80386-based systems.

Because all workstations run RING, users can mix and match different computers on a network with at least 4 Mbits-per-second file access speed, Rooker said.

Realm will use AppleTalk cabling, but the network will not use Apple networking protocols, he said.

Realm may not be as capable as its parent company's Tandem minicomputer-based $750,000 systems, but it provides a low-cost, easy-to-maintain solution for small operations, said Bill Blakeman, general manager.

Users will be able to output to 300-dpi laser printers or to the company's Ultre film recorder at 600 dpi, Rooker said.

Realm is scheduled to ship in the first quarter of 1988 and will be available on a site license basis for $1,200. The RING operating system will cost an additional $1,200, according to the company.

Publishing Empire can be contacted at P.O. Box 13250, Sacramento, Calif. 95813; (916) 646-1111. ■

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Apple to introduce software for TCP/IP market

BY JON SWARTZ
MacWEEK Staff

CUPERTINO, Calif. — The ABCs of Transmission Control Protocol/Internet Protocol, or TCP/IP, may have prompted alphabet angst among telecommunications managers for years, but the recent entry of Apple and other vendors into the market spells good news for the increasingly popular protocol.

Apple plans to enter the TCP/IP market with a software package at the 2nd TCP/IP Interoperability Conference in Arlington, Va., Dec. 1-4. More than 1,000 users are scheduled to attend the show, making it the largest TCP/IP conference.

"TCP/IP is here to stay," said Daniel Lynch, conference organizer and president of Advanced Computing Environments, a Cupertino, Calif.-based consulting firm specializing in multivendor networking. "Every major vendor is jumping on the bandwagon."

TCP/IP, a set of networking protocols that links computers from multiple vendors, was developed at Stanford University in Palo Alto, Calif., in 1974 as part of the UNIX operating system and has been adopted as a networking standard in government, academic and technical computing environments.

The Department of Defense, Stanford, Carnegie-Mellon University in Pittsburgh, and the University of Michigan in Ann Arbor, Mich., all have used in-house versions of the protocol for several years. Currently, there are more than 50 vendors nationwide that make TCP/IP-related products, amounting to a multimillion-dollar industry.

"Obviously, Apple is always interested in expanding the higher education market," said Janet Tornow, Apple university marketing director. "However, to talk about TCP/IP software now would be premature."

But sources at Apple admit the company is scrambling to develop TCP/IP software in time to coincide with the December trade show.

"To make a major announcement at such a big show would really create a splash for Apple in the TCP/IP market," said Jan Lewis, president of Jan Lewis Research in Sunnyvale, Calif. "The market is teeming with college and government accounts."

IBM, TOPS, A Sun Microsystems Co. (formerly Centram Systems West) of Berkeley, Calif., and Excelan Inc., a San Jose, Calif., TCP/IP maker, already have either released TCP/IP products or merged with companies that make TCP/IP products.

In August, TOPS introduced a software package, TOPS Terminal, that lets Macintoshes communicate with computers on TCP/IP-based networks. Later that month, Excelan announced its merger with Kinetics Inc., a Walnut Creek, Calif., manufacturer of Mac- and AppleTalk-related networking products.

Last year, IBM introduced TCP/IP connections to its 9370 line of super-minicomputers.

"We think the [Excelan-Kinetics] merger is the beginning of a trend," said Steve Spanier, Excelan's technical marketing manager. Spanier and others, like TOPS President and CEO Nat Goldhaber, say TCP/IP software on Macs brings the Mac into mainstream computing, or "heterogeneous," environments and gives TCP/IP users a powerful office productivity tool in the Mac.

Kinetics, which released FastPath, the first Ethernet package for the Mac, two years ago will combine technology with Excelan to seize major corporate network accounts, according to Steve Nelson, Kinetics marketing director.

"There is a lot of interest among universities for something like this," Nelson said, referring to the FastPath Ethernet package that now will be linked to TCP/IP. "Users will be able to connect their Apple computers to anything up to a Cray."

Despite its success, TCP/IP is not used by banks and other commercial companies. Lynch said MIS directors have been nursed on IBM's Systems Network Architecture, which is incompatible with TCP/IP, and they are hesitant to try anything else. "Chalk it up to IBM's superlative marketing," he said.

Mike Eldridge, communications director at Pacific Valley Bank in San Jose, Calif., said he hasn't heard of TCP/IP but is interested. "Most banks do not do a lot of extensive networking," he said. "Maybe now that IBM has entered the market, bank communications directors will hear about it."

Although some universities, including Stanford, have developed their own implementations of TCP/IP, enough universities, government agencies and CAD/CAM companies are interested in the protocol to make it lucrative.

MICHAEL JAY

Daniel Lynch: "TCP/IP is here to stay."

"TCP/IP is a dream," said Dave Preston, marketing director at TCP/IP pioneer The Wollongong Group in Los Gatos, Calif. "TCP/IP can run on DECnet, VAX/VMS, MS-DOS and AT&T 3B, and it is a de facto government standard widely used by universities and manufacturers. It gives users an ability to mix and match the best of different vendors' equipment."

Since most users buy networking products from more than one vendor, Preston said, they have begun telling IBM, "We're not going to buy IBM products unless you offer TCP/IP." ■

Release of MacWorkstation confirmed

BY JON SWARTZ
MacWEEK Staff

CUPERTINO, Calif. — MacWorkstation, an Apple software program for mainframe applications in corporate MIS departments, will be released Jan. 1, Apple officials said last week.

The software program, currently in beta testing, is being marketed to MIS directors with little Macintosh programming experience, said Peter Hirshberg, manager of Apple's desktop communications and large systems group.

"This encourages people to develop skills on the Mac," Hirshberg said. "We're trying to give corporate departments an incentive to build a Mac interface."

Hirshberg said MacWorkstation allows a Mac to be used as a front end to a host computer while maintaining its graphical interface.

MacWorkstation resides on the Mac and can work with any host computer, such as those from IBM Corp. and Digital Equipment Corp., using a customized mainframe application, according to Norman Kline, MacWorkstation product manager.

The product will support six modules — AppleTalk, IBM's 3270 terminal, the Transmission Control Protocol/Internet Protocol, RS-232, Tandem Computer Inc.'s 6530 and the Communications Connection Language, Apple's new scripting language used to log on to host computers using AppleLink.

MacWorkstation, originally developed for use in Apple's MIS department in 1985, reportedly will be sold only through Apple. Site licenses will be available for $2,500 for users and $5,000 for third-party developers.

Apple's announcement was overdue, said Peter Teige, PC analyst at Dataquest of San Jose, Calif. "A lot of people expected the program to be introduced at Mac Expo," he said.

Last year, Apple pulled MacWorkstation from the market in order to prepare it for general release, according to Kline.

MacWorkstation will compete with Systems Applications Architecture, an interface standard being developed by IBM that would link all its mainframe-to-PC applications, Kline said.

John DuBois, senior technical adviser for Seafirst Bank, said the Seattle-based bank intends to use MacWorkstation for applications requiring significant user interaction.

DuBois said Seafirst would use MacWorkstation primarily for electronic mail.

Oracle Corp. of Belmont, Calif., has obtained MacWorkstation for product development but refused to divulge product plans. ■

Informix brings SQL to Mac II

BY JIRI WEISS
MacWEEK Staff

MENLO PARK, Calif. — Informix Software Inc. will become the first company to offer Macintosh relational database products that use Structured Query Language (SQL).

SQL is an emerging standard for relational databases, especially in the government and education markets.

The Menlo Park, Calif., company plans to offer Mac versions of all of its SQL products now available under the UNIX, VMS, MVS and MS-DOS operating systems. The new software will run under AU/X on a Mac II.

The products include the $1,600 INFORMIX-SQL, an SQL database and report writer; the $2,400 INFORMIX-4GL, a database development environment capable of developing pop-up menu displays, forms and reports; and the $1,200 INFORMIX-ESQL/C, a tool that allows programmers to incorporate database commands into programs written in C. All the products will ship as soon as Apple releases AU/X, according to Informix.

The original Informix products are designed to work in a networked environment as, for example, front ends to large mainframe databases. But the initial releases for the Mac will work only as a stand-alone programs, according to George Billman, Informix business marketing manager. Support for networking protocols such as TCP/IP will be added later. "We are only a couple of steps away from providing networking connections," he said.

Informix is working hard to be the user interface and set of tools to get into other databases, according to Paul Cubbage, software industry service associate director for Dataquest, a market research firm in San Jose, Calif. "The market must be telling them that they want products on a Mac," he said.

Cubbage said he expects to see the Mac-based products mainly in the university and engineering markets. "But they will make Apple easier to live with in corporations. The effect on Apple is nothing immediate or huge. It is one more stone in the structure you build in becoming a significant vendor," he said.

Oracle Corp. of Belmont, Calif., another SQL database publisher, reportedly also has Mac versions of its products in the works.

"We are not ready to make any product announcements," said Eugene Sklar, Oracle's director of marketing for the PC. "There may be one later this year or in two years. We recognize the Mac is becoming more popular in corporate America and we are feeling pressure."

Informix Software Inc. is located at 4100 Bohannon Dr., Menlo Park, Calif. 94025; (415) 322-4571. ■

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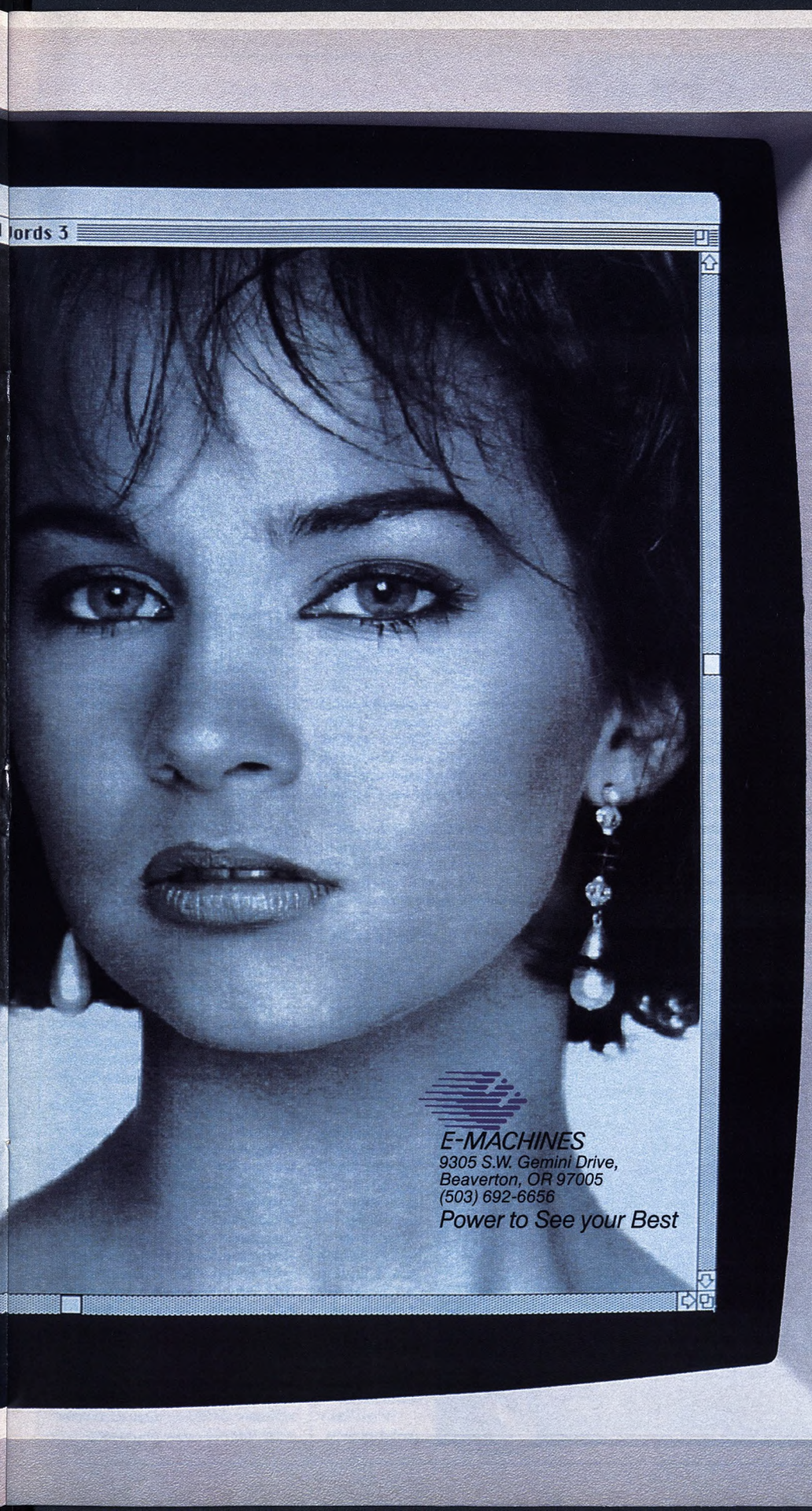
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Mac programming market booms

Young companies meet demand for programmers

BY ELINOR CRAIG
MacWEEK Staff

The boom is on. Because of a shortage of experienced Mac programmers there is a bull market for Mac programming companies. Two young companies are typical representatives of this trend. Nuvo Labs in San Luis Obispo, Calif., and Bear River Associates in Berkeley, Calif., are quickly creating a name for themselves as crack programmers for the Mac.

Tucked behind San Luis Obispo near the base of the Cuesta Grade incline, Nuvo Labs was founded by Dave Nelson, now company president. "When we started, we planned to publish our products as well. But for us the market has proven that programming is where the money is," he said.

However, gaining respect from the programming community did not happen over night. Nelson, who can match technical skills with any of his programmers, has learned the hard way.

"Mac programming is unlike anything else. It is hard to get good programmers. And when you do, it takes a minimum of one month, seven days a week, to get a top-notch programmer up to speed," he said. Last year Nuvo's workload was only one quarter of what it is today.

What software developing companies such as Nuvo Labs can offer is managing the programmers. That is the hard part, according to Nelson. But he has his pool of dependable people and a flexible personality. "Bizarre or not, I can talk to them. Most are hackers, and once they get it up and working, they don't know where to go," he said. That is when Nelson steps in.

At the same time Nuvo Labs was starting up, two other programmers who became enchanted with the "elegance and fun" of the Mac started a similar venture. Founded by Tony Meadow and David Richey, Bear River Associates receives requests for four times the amount of work they can possibly handle, according to Meadow.

At first, Bear River put out a shareware program, Font Library, that attracted many users and established its reputation as a company that could put out a bug-free product. Recently, Bear River has produced Publish Pac — an application that lets the user scan in photos, line art or text — for DEST Corp. of Milpitas, Calif.

Although Bear River has not spent one penny on advertising, its business has steadily increased. Word of mouth travels fast in the Mac community.

"At first the IBM was the exciting machine; the Mac was too cute," said Meadow. But he and Richey concentrated on the Macintosh and when the business community took to Macs, dependable Mac programming became a hot commodity.

The consensus among programmers is that it is more difficult to write programs for the Macintosh.

"The work is harder," said Richey. "It is harder to do any given task, and the user expects more from any given program."

But programming prowess on the Mac translates into dollars. Bear River's staff has grown from two programmers to five and will shortly increase to seven. Its market hegemony is due to a considerable investment in time.

The same is true for Nuvo Labs. Nelson was the only programmer three years ago. Now he has eight working for him full time.

Another factor feeding the demand for Mac programmers is the PC market's move toward a more Mac-like interface.

"Mac programmers are in the cat-bird seat because the Mac market is so active these days," said Kevin Goldstein, manager and writer at Peter Norton Computing in Los Angeles. "The Mac environment is unique, and that makes the learning curve for DOS programmers so steep at first."

While third-party development has thrived since the Macintosh's introduction in 1984, most companies undertook marketing and publishing as well as development. Free-lance programmers were hired on a project basis or they were drawn into the research arm of a larger company.

This past year, changes abounded in the Macintosh software marketplace. "There is, in fact, a trend toward hiring developers for major products," said Robert Perez, manager of business software evangelism at Apple.

"There has been a three- to four-fold increase in requests for developers," he said. "MS-DOS companies, such as Ashton-Tate, worked closely with Apple to build a Mac team. Fifty percent of my time is spent putting companies together with Mac programmers."

Software entrepreneur Charlie Jackson of Silicon Beach Software of San Diego explained the boom, saying: "There are two ways the demand is growing. Existing Mac companies are growing and need more programmers. Second, MS-DOS companies are clamoring to get into the market.

"Ashton Tate's headhunters were out in force three years ago," Jackson said. "They were scouring the countryside looking for Mac programmers. They even called me to ask for suggestions."

Peter Norton Computing, presently a DOS-oriented company, also has been investigating the Mac market. "I would be lying if I said we weren't interested," said Goldstein. "But we have found that good Mac programmers are hard to come by."

The Mac user interface represents the major challenge for PC programmers, which puts Mac programmers in a strong position, according to Bear Rivers' Richey: "The Mac user interface is the most important element in our progress. It has turned out to be one of the largest factors for the Mac itself," he said.

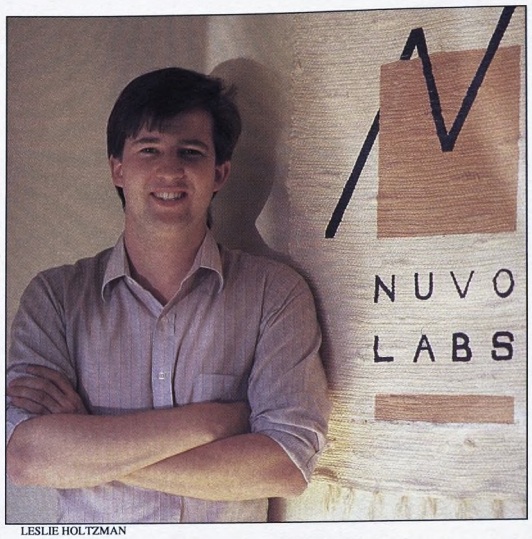
"More intuition is needed than before," said John Boeschen, who owns an independent programming company in San Rafael, Calif., that deals with all types of computers. "The need for an easy user interface throws some programmers off. Easy didn't used to be an issue."

Nelson has found that Nuvo Labs' clients are starting to be comfortable with contracting out. CMS and Everex are two corporations that have used Nuvo Labs more than once. Even so, most companies would rather oversee their own programmers. "Hiring a Mac team is more the rule, to make them an in-house team," said Apple's Perez. "But on the whole, programmers would prefer to remain independent, which makes for an interesting exchange."

Larger companies have approached both Bear River and Nuvo Labs with acquisition offers. And both have turned them down, hoping that the trend will allow them to continue as their own bosses. Most larger companies, though, have something different in mind.

Steve Starr, director of dBASE Mac development at Ashton-Tate of Torrance, Calif., said, "Some outside work is being done now, but we eventually want people to come in-house with most of the skills we need and we can teach them the rest."

But companies looking to buy may have to adapt to the independence of the programmers. "It's a seller's market," said Perez. According to Meadow and Richey, clients are now more comfortable with outside programming.



LESLIE HOLTZMAN

"For us, the market has proven that programming is where the money is."

DAVE NELSON, Nuvo Labs

The people behind Bear River Associates are, from left, Pam Curry, Mike Sexton, Tony Meadow, Randy Matamoros, Michael Budiansky, Diana Meadow and, standing, Dave Richey.

CAMILLE GOOD

Updating Mac II compatibility

Editor's note: This article is based on testing by Lance Wynne and others at TLC Software and developers they work with. The opinions expressed are Lance Wynne's.

BY LANCE WYNNE
Special to MacWEEK

Did you read about the new Macintosh and say to anyone who would listen that you had to have a Mac II? Did you pester every Apple dealer within six states for the first one they had available? Did you finally get your new Mac II minus its Apple RGB color monitor and unpack it like some precious artifact? Did you try running your old software and suffer through system bomb after bomb? Do you sit next to your new Mac II saying to yourself, "Now what?"

That is just what happened to me! With all the hype that preceded and followed the release of the Mac II, I expected to be able to purchase both the Macintosh II and its compatible color monitor and boards right away. Three months after the Mac II's introduction, I was fortunate to receive a Macintosh II, but I was stuck with a monochrome monitor. Several weeks after my machine arrived, I was told that the RGB monitor wouldn't be available until October.

There are many products that should have been available and compatible for the Mac II from the beginning, but even MacWrite didn't work for the first two months I had my Mac II.

The problems I encountered led me to do informal testing of product compatibility. What I thought would be a quick effort has taken much longer as word of the project got around. At first, I had to look for developers and products to test; now they are coming to me.

The testing was done on a Mac II with 2 Mbytes of RAM, an internal 40-Mbyte hard drive, an 8-bit video card with the 16-bit expansion kit, a floppy drive, a monochrome monitor, an RGB monitor and a PCPC II 19-inch multi-sync color monitor, and System 4.1 and Finder 5.5. I found more than 100 products to be partially or fully compatible. The list of products tested was limited by the amount of software I could obtain, so there are some omissions.

Word processing

MacWrite 4.6 has finally shipped and generally works, but it still has some bugs. When printing a MacWrite document that has been converted from some other word processor, the Chooser turns off the printer selection. Some of the problems I experienced may be related to problems with Chooser 3.1. I want to see an update of MacWrite because I have many MacWrite documents that I can't read on the Mac II. It is possible to convert the documents to another word processor, but I really don't want to go to that much trouble. Watch out for MacOneWrite from Sierra Online, where canceling printing to the LaserWriter may cause a crash.

Communications and network products

Products in this category seem to be faced with several operating problems. I did not test any networking software, so these reports are from outside sources. Think Technologies' InBox is incompatible with System 4.1 on networks using a background (non-dedicated) server, so it cannot be used with the Mac II under those circumstances. MacServe, from Infosphere Inc., will hang up if a volume is removed while you are trying to access it. With VersaTerm Pro 1.2 from Peripherals Computers and InTalk from Palantir, the arrow keys don't work properly. TOPS, from TOPS, A Sun Microsystems Co. (formerly Centram Systems West) reportedly hangs up in environments with many network bridges.

Databases

Database managers can now take advantage of the speed that the Mac II offers and many do. Blyth Software's Omnis 3 Plus, ACIUS' 4th Dimension, Odesta's Helix and Forethought's FileMaker Plus are all compatible. 1st Base, from 1st Desk Systems, which was never HFS compatible, is being upgraded and reportedly works on the Mac II.

Graphics

Graphics programs have always been in high demand for the Macintosh family. Many graphics programs like MacPaint, SuperPaint from Silicon Beach Software and Cricket Draw from Cricket Software are compatible in black-and-white mode. Updates to Cricket Draw and Cricket Graph that include color are available.

Visual Information's Dimensions, a 3-D CAD color program, is compatible and extremely impressive, but it is also expensive. Earlier versions of MacroMind's VideoWorks are not compatible, but the upgrade, VideoWorks II, has been released for the Mac II in brilliant color.

Developers' software

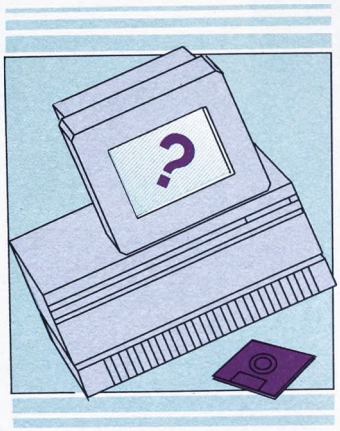
The situation for developers is generally very good. The entire Microsoft Programmers Workshop family, including C, Pascal and MacApp, are compatible, but be sure you get the correct version of Corvus Systems' MACSBug — MacIIBug 5.3 — or you will hang up your system. The other debuggers tested, ICOM Simulations' TMON and The Debugger from Jasik Designs, worked fine. Think Technologies' LightSpeed Pascal and LightSpeed C have been recently updated to work on the Mac II.

Memory

One major problem I have encountered is memory. In particular, 1 Mbyte of RAM is insufficient when using a large-screen monitor. Even after upgrading to 2 Mbytes, two-page editing on such products as Adobe's Illustrator, Aldus' PageMaker and Target Software's Scoop is almost impossible. With each attempt to do two-page editing with these products, I not only experienced a system bomb, I could not boot from the hard disk. Booting from a floppy and updating the disk driver using Apple HD SC setup remedied the problem.

When talking with developers, I frequently heard complaints about the availability of memory and color monitors. Even though Apple has lowered prices, developers are unable to obtain products. Karl Seppala, marketing manager for Orange Micro Inc. of Anaheim, Calif., developer of Ragtime, said, "I know developers who say that if you haven't developed anything for Macs, you probably will receive your Mac II for development; otherwise you will have to purchase one."

Other developers said they weren't interested in waiting for developer services to get



them machines and shopped for discounted Mac IIs from dealers. Solutions Inc., developer of SmartScrap and Super Glue, said it not only bought a Mac II from a dealer but also received a discount. Company representatives said the dealer has had Mac IIs since they were first released but still has no color monitors.

According to Kelly Laccabue, an Apple representative, the Mac II will be shipping in large quantities shortly because the production problems have been worked out.

I hope developers will continue to upgrade their products so they are compatible with the Mac II and Apple will have products for those left waiting for a Mac II or a color monitor.

Lance Wynne specializes in product design and implementation for TLC Software Inc., a Macintosh developer and beta test site since the introduction of the Mac II. Randy Kottwitz, author of "The Power Users Manual," assisted with this article. For a complete list of products tested write to TLC Software Inc., 9 Christopher Road, Merrimack, N.H. 03054.

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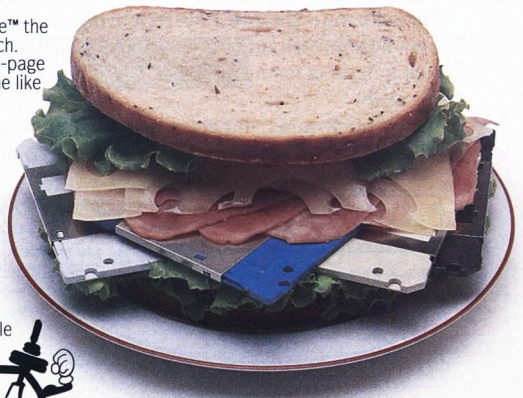

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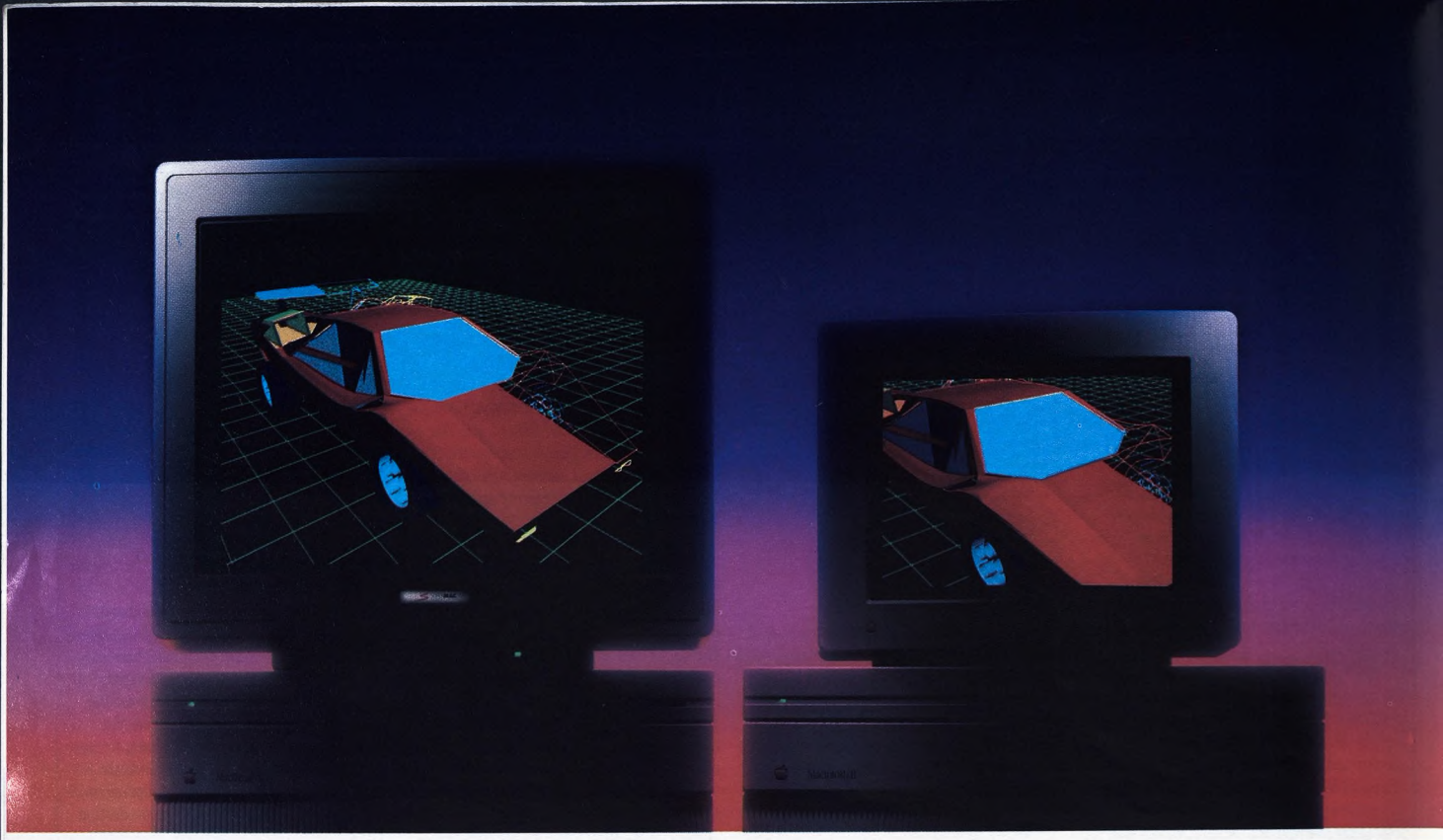
Macintosh is a trademark of Apple Computer Inc.
SuperGlue runs on any Macintosh larger than 512K.



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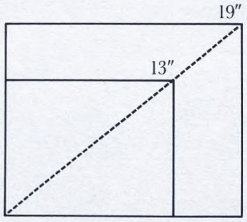

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HyperCard copies difficult to find

BY CLAIR WHITMER
MacWEEK Staff

CUPERTINO, Calif. — Sporadic distribution by Apple may force users in the market for HyperCard to shop around.

In an informal survey of retail stores, some dealers reported no problems with receiving their purchase orders of the relatively new application. But many others said the shipments they've received have been infrequent and inadequate to meet the demand.

"It is a problem. I was promised all kinds of them by the end of September, but I've never had more than four or five in stock," said William Rajscoup of Era Electronics in San Francisco.

Rajscoup is especially concerned because another dealer in the same area is advertising an abundance of HyperCard copies, including a big window display of the product. "People are beating down the doors for them. And when I tell them I don't have any, they say, 'But so-and-so has them in the window,' " he said, adding that the disparity is hurting his business.

Apple acknowledges the situation but doesn't believe that the back orders constitute a major delay, according to Apple representative Cynthia Macon. "It's to be expected. We are still on schedule; it's just a matter of filling all the orders. It's just going to take some time to build and distribute this product," she said.

Macon denied that the company is practicing any selective distribution but said the company is simply filling the orders as they are received. Apple expects to fill all back orders by November, she said.

This would seem to be confirmed by the case of one retail chain, Computer Craft, whose San Francisco outlet reported no difficulties with HyperCard orders. Computer Craft corporate purchasing offices in Houston, however, said Houston outlets have placed a sub-

See HYPERCARD, Page 22

Apple hopes 'Team Selling' will avoid channel conflict

BY RUSTY WESTON
MacWEEK Staff

MAUI, Hawaii — Volume Mac buyers are skeptical about Apple's new strategy of funneling business through resellers, whom buyers suspect know more buzzwords than solutions.

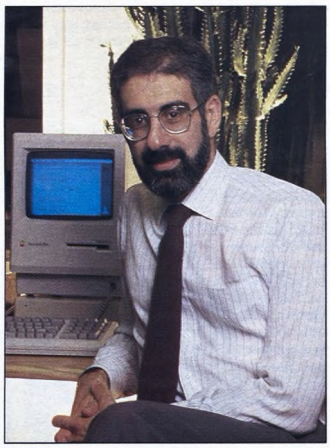
But Apple and industry analysts are optimistic that the Team Selling program will succeed — if only because it sidesteps sales conflicts in reseller channels.

Apple recently kicked off its Team Selling program with an upbeat, three-day sales conference in Maui, Hawaii. Tanned sales representatives were briefed on a market survey that indicated corporate customers think dealers lack the resources to solve problems like connecting Macs to IBM PCs or mainframes.

Apple's 2,000-member sales force and its 1,900 authorized dealers were sent away with the impression they have something to prove to corporate America.

"As people do more and more linking of Macs to other environments and larger machines, dealers don't understand and can't support that environment," said John McCarthy, a market research director with Forrester Research Inc. of Cambridge, Mass.

Jay Adler: "The important thing ... is to have a handle on concepts and provide solutions."



CINDY CHARLES

McCarthy recommended to the conference Oct. 7 that Apple switch to a two-tier dealer structure: one for home, education and small businesses; the other for servicing large connectivity accounts. Apple has already segregated Apple II dealers from Mac dealers.

For now, Apple is implementing its Team Selling program, in which all Apple products will be sold through resellers, including dealers, systems integrators and value-added resellers (VARs). Only the top 75 national accounts will have the option of purchasing equipment directly from Apple.

Apple sales people will assist in stores, make field presentations to customers, and service large, corporate and government accounts.

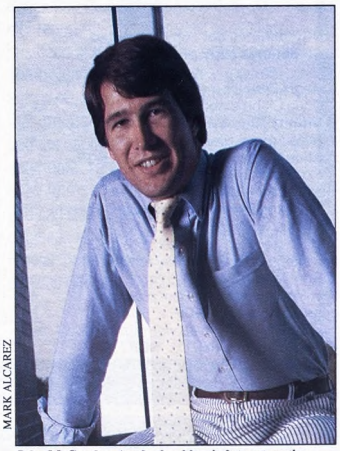
Although Apple has referred business to resellers since it was founded, Apple is trying to avoid hiring too many sales people who will compete against the dealers, as with IBM. Nevertheless, Apple has expanded its sales force by more than 25 percent in the past year and split sales management into three regions.

"We realize major corporations are still looking for Apple faces, but not necessarily Apple price lists," Jim O'Gara, Apple's director of business sales development, said in a recent interview.

O'Gara said he is responsible for the Team Selling program and for selling his employees on the program. "What we're trying to do is put more people in front of the customer," he said. "The model of customer service with account managers was good for penetrating the business market, but the fact [remains] it's cost-prohibitive for any micro manufacturer to take a full, direct-sale approach."

"A lot of corporations like dealing directly with vendors," said Jeff Walker, a partner of MacOrchard of Berkeley, Calif.

Walker said he enjoys flexibility by not being an authorized Apple dealer. "I think [some] corporations are hesitant about dealers because the dealers haven't shown they can support business," he said.



MARK ALCAREZ

John McCarthy: Apple should switch to a two-tier dealer structure.

"We've had no problems working with dealers as far as delivery of product," said Jean Anicetti, a purchasing agent for Genentech Inc. of Concord, Calif., "but we'd like to see a lot more input from Apple, more direct technical support. The dealers know a little bit about everything, but they don't know a lot about everything."

Anicetti, whose biological research company frequently buys Macs and PCs, said: "Our users are very sophisticated, and they need in-depth information that they can't get from dealers. We tend to be very demanding, and I don't know if they can spend as much time as we need."

According to Charles Chickadel, president of Fax Communications Inc. of San Francisco, his company went with a VAR because since

See TEAM, Page 22

DPI, EPI show lower dips than Dow Jones

BY JOSEPH PERATES
Special to MacWEEK

Both MacWEEK publishing indexes dropped this period, following the downturn in the overall market. But the dips of 3.16 percent and 1.96 percent, respectively, for the Desktop Publishing Index and Electronic Publishing Index were less than the nearly 3.5 percent lost by the Dow Jones Industrials.

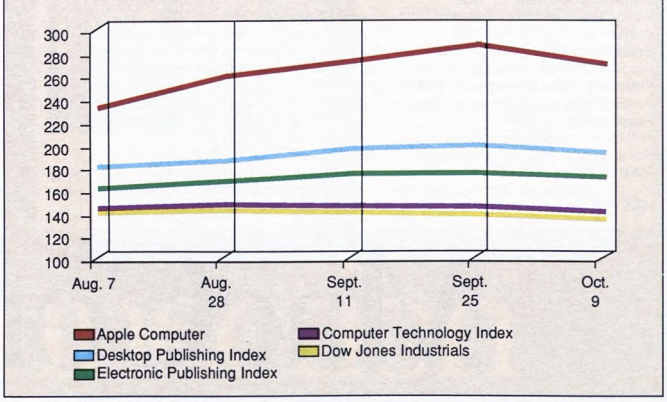
The drop in the Dow resulted from an unexpected hike in the prime rate, a falling dollar overseas and a negative forecast by a widely followed market technician. Apple's stock also declined — by a hefty 5.87 percent — for the first time since MacWEEK began charting publishing stocks. The decline may have been the result of nervousness preceeding Apple's annual earnings report last week. The news was expected to be good, but with Apple's exceptional recent performance, stockholders were inclined to take their profits.

Another notable loser was Apollo Computer Inc., which lost 3-1/4 points following the announcement of a net loss for the quarter.

Two stocks that performed well in the otherwise dismal market were Aldus Corp. and Interleaf. Aldus recovered from 23 to 28-1/4 on news of a new European marketing operation. At its peak during the period, Interleaf topped 24 but closed at 21-1/8, up 1 point. The market continues to recognize Interleaf as one of the strongest players in electronic publishing and that the technical documentation niche it dominates is highly lucrative.

Joseph Perates, a stockbroker in the Newport, R.I., office of Thomson McKinnon Securities, developed the MacWEEK Desktop Publishing and Electronic Publishing indexes. His opinions are his own.

PUBLISHING STOCKS FOLLOW DOWNTURN IN MARKET



Hardware and software for the business Mac.

SOFTWARE

NCP denotes not copy-protected.
CP denotes copy-protected.

Aegis Development ... NCP
Doug Clapp's Word Tools ..... $42.
Affinity Microsystems ... NCP
Tempo *(power user's macro utility)* ..... 55.
Allan Bonadio Associates ... NCP
Expressionist *(equation processor)* ..... 52.
ALSoft ... NCP
DiskExpress *(maximize disk performance)* 27.
Altsys ... NCP
FONTastic Plus *(advanced font editor)* .... 49.
Fontographer *(Laserwriter font editor)* ... 245.
Ann Arbor ... NCP
FullPaint *(advanced Paint program)* ..... 49.
Ashton-Tate ... NCP
dBASE Mac 1.0 *(relational, req. MacPlus)* 299.
Batteries Included ... NCP
Thunder! 1.23 *(spelling checker)* ..... 32.
Berkeley System Design ... NCP
Stepping Out *(requires 512k)* ..... 55.
Blyth ... NCP
Omnis 3 Plus *(multi-user available)*..... call
Borland International ... NCP
Turbo Pascal Tutor ..... 49.
Sidekick 2.0 *(includes MacPlan)* ..... 59.
Turbo Pascal *(HFS compatible)* ..... 59.
Reflex Plus *(relational database)*..... 165.
BrainPower ... NCP
Graphidex *(DA graphics organizer)* ..... 69.
Designscope *(electronic circuit design)* .. 129.
MathView Professional *(num. analysis)*... 149.
StatView 512+ *(req. external drive, 512k)*... 179.
Bravo Technologies ... NCP
MacCalc *(easy to use spreadsheet)* ..... 79.
Broderbund ... NCP
Videoworks II *(graphics & animation)*..... 119.
CasadyWare ... NCP
Fluent Fonts *(two-disk set)* ..... 29.
Fluent Laser Fonts *(Vols. 1-15)* ..... *each* 48.
CE Software ... NCP
Disktop 3.0 *(powerful DA Finder)* ..... 35.
Centram Systems West ... CP
TOPS *(file-server/LAN software)*..... 125.
Challenger Software ... NCP
Mac3D *(3D graphics, CAD features)*..... 129.
Chang Labs ... NCP
Rags to Riches Led., Pay. or Rec. ..... 125.
Rags to Riches 3 Pak ..... 299.
The C.A.T. *(Contacts, Activities, Time)* ..... 243.
Inventory Control or Professional Billing... 243.
Professional 3-Pak ..... 389.
Cortland ... NCP
TopDesk 2.1 *(7 new desk accessories)* ..... 34.
Cricket Software ... NCP
Statworks *(statistical package)* ..... 75.
Cricket Graph *(multiple windows)*..... 125.
Cricket Draw *(advanced draw capabilities)* 175.
Data Tailor ... NCP
Trapeze *(spreadsheet, reqs. 512k)* ..... 159.
DataViz ... NCP
MacLink Plus *(transfer Mac/IBM data)*..... 159.
Digital, etc. ... NCP
Turbo Maccountant *(GL,AP,AR,Payroll)*.... 259.
Dove Computer ... NCP
RAM Snap *(RAM Disk/Disk Cache)* ..... 24.
Dubl-Click Software ... NCP
World-Class Fonts! *(both Volumes)*..... 49.
WetPaint Clip Art *(both Volumes)* ..... 49.
Enabling Technologies ... NCP
Pro 3D *(3D shaded modeling)* ..... 199.
Fifth Generation Systems ... NCP
FastBack Mac *(poweful backup utility)* ..... 59.
Forethought ... NCP
FileMaker Plus *(feature-packed database)*.. 149.
PowerPoint *(professional presentations)* ... 209.
FWB Software ... NCP
Hard Disk Backup or Partition ..... 38.
Hard Disk Util *(program backup)* ..... 56.
Greene, Inc. ... NCP
QuickDEX *(address book)* ..... $24.
Ideaform ... NCP
MacLabeler or DiskQuick ..... 29.
Imagine ... NCP
Smart Alarms *(DA reminder system)*..... 38.
Multi-User Smart Alarms ..... 99.
Infosphere ... CP
LaserServe *(LaserWriter spooler)* ..... 65.
ComServe 1.0 *(modem sharer, NCP)* ..... 129.
MacServe *(AppleTalk software)*..... 165.
Innovative Data Design ... NCP
MacDraft 1.2A *(requires 512k)* ..... 159.
LaserWare ... CP
LaserWorks *(requires 512k, LaserWriter)* ... 199.
LaserPaint *(requires Mac Plus, LaserWriter)* 319.
Layered ... CP
Notes for...Excel, Works, or Word..... *each* 42.
Legisoft/Nolo Press ... NCP
WillWriter 2.0 *(prepare your own will)*..... 31.
Living Videotext ... NCP
More 1.1C *(outlines, windows, & tree charts)* 149.
Lundeen & Associates ... NCP
WorksPlus Spell ..... 38.
Macropac International ... NCP
101 Macros for Excel ..... 49.
Micro Analyst ... NCP
Mac Zap *(recover crashed hard disks)* ..... 36.
Microsoft ... NCP
Basic Interpreter 3.0 ..... 64.
Chart 1.02 *(42 chart styles, CP)* ..... 72.
Multiplan 1.1 or File 1.05 ..... 111.
Basic Compiler 1.0 ..... 119.
Fortran 2.2 *(compiler)* ..... 169.
Works 1.0 *(integrated tool)* ..... 189.
Excel 1.04 *(power spreadsheet)*..... 224.
Word 3.01 *(word processor)*..... 239.
Mindscape ... CP
GraphicWorks 1.1 *(newsletters, posters)*.... 48.
Monogram ... NCP
Dollars & Sense *(home, small business)* .... 81.
Odesta ... NCP
Double Helix II *(relational, custom menus)* 275.
OWL International ... NCP
Guide *(hypertext, free-form info)* ..... 79.
Guide Envelope System ..... 99.
Palantir ... NCP
inTalk *(communication to emulation)*..... 99.
PBI Software ... NCP
HFS Locater *(DA organizer for HFS)*..... 26.
HD Backup *(supports MFS, HFS)*..... 29.
Personal Computer Peripherals ... NCP
HFS Backup ..... 32.
ProVUE Development ... NCP
OverVUE 2.0 *(power-packed database)* ... 149.
Satori ... NCP
BulkMailer 3.0 *(mailing lists)*..... 85.
BulkMailer Plus *(up to 90,000 names)*..... 199.
Legal Billing *(attorneys to accountants)*.... 385.
Legal Billing II *(full trust accounting)*..... 575.
Project Billing *(architects to engineers)* .... 445.
Silicon Beach Software ... NCP
Silicon Press *(printer utility, 512k)*..... 41.
SuperPaint *(advanced graphics program)*... 79.
SoftStyle ... NCP
Printworks *(print faster & in color)* ..... 49.
Software Discoveries ... NCP
Record Holder Plus *(data manager)*..... 45.
Software Ventures ... NCP
Microphone 1.1 *(includes Glue™)* ..... 119.
Solutions, Inc. ... NCP
SmartScrap & The Clipper or Glue..... 41.
SuperGlue *(total graphic integration)*..... 59.
SuperMac Software ... NCP
SuperSpool 3.4 ..... 49.
Diskfit *(backup & restore utility)*..... 49.
Network Diskfit *(automatic backup)* ..... 259.
SuperLaserSpool ..... 99.
Sentinel *(encryption)* ..... 99.
Multi-User SuperLaserSpool ..... 259.
Survivor Software ... NCP
MacMoney *(financial planner)* ..... 42.
Symmetry ... NCP
Acta 2.0 *(outline/writing desk accessory)*... $38.
PictureBase 1.2 *(clip art manager, 512k)*.... 59.
T/Maker ... NCP
ClickArt Personal Graphics, Effects, Publications, Letters Vol. 1 or 2, Holidays, Business Image ..... *each* 28.
Bombay, Plymouth, or Seville Laser font ... 46.
Write Now *(word processor)* ..... 99.
THINK Technologies ... NCP
HFS Navigator 1.0 *(search for buried files)* .. 39.
Laserspeed *(Laserwriter utility)* ..... 59.
Lightspeed Pascal *(includes debugger)* .... 85.
Lightspeed C *(top-rated C Compiler)* ..... 99.
InBox Starter Kit *(CP)*..... 219.
TML Systems ... NCP
TML Pascal *(compiler, req. 512k)* ..... 68.
TrueBasic ... NCP
True BASIC *(fast, flexible & portable)*..... 59.
Algebra 1 or II, Trigonometry, 3D Graphics, Probability & MacFunction ..... *each* 35.
TrueSTAT *(statistics)*..... 58.
Runtime *(create stand-alone applications)*... 59.
William & Macias ... NCP
myDiskLabeler *(design & print labels)*..... 24.
myDiskLabeler w/Color *(req. Imagewriter II)* .. 33.
myDiskLabeler w/Laserwriter option ..... 38.
Working Software ... NCP
Lookup *(90,000 word dictionary)* ..... 29.
Findswell *(locate documents fast)*..... 29.
Spellswell 2.0 *(spelling checker)*..... 42.

HARDWARE

Manufacturer's minimum limited warranty period is listed after each company name. Some products in their line may have longer warranty periods.
Note: Some hardware items are available in either platinum or beige color. Please specify.

20 Meg SCSI Hard Drive *(120 days)*..... 569.
AST Research ... 6 months
AST Turboscan *(300 dpi scanner)*..... 1395.
AST 2000 *(20 Meg, 20 Meg tape)*..... 1395.
Curtis Manufacturing ... lifetime
Diamond *(6 outlets)*..... 29.
Emerald *(6 outlets; 6 ft cord)* ..... 36.
Sapphire *(3 outlets; EMI/RFI filtered)* ..... 47.
Ruby *(6 outlets; EMI/RFI filtered; 6 ft cord)*... 55.
Dove Computer ... 90 days
MacSnap 548S *(512E to 2 Mb w/SCSI Port)* 469.
MacSnap 2S *(1 Mb to 2.5 Mb, expandable)* 489.
MacSnap 4S *(1 Mb to 4 Mb)* ..... 969.
Ergotron ... 1 year
Mouse Cleaner 360° ..... 15.
MacTilt or MacTilt SE ..... 74.
MacBuffer 512k ..... 329.
MacBuffer 1024k ..... 429.
Farallon Computing ... 1 year
PhoneNET PLUS *(DB-9 or DIN-8)* ..... 39.
Hayes ... 2 years
Smartcom II *(communications software)*.... 88.
Smartmodem 1200 ..... 299.
Smartmodem 2400 ..... 449.
Kensington ... 1 year
Disk Drive Cleaning Kit ..... 20.
Tilt/Swivel..... 22.
Universal Copy Stand..... 24.
Polarizing Filter or Surge Suppressor..... 34.
Apple Security Kit..... 35.
Printer Muffler *(80 column)* ..... 39.
System Saver Mac or Control Center ..... 64.
A-B Box *(for the Mac Plus)* ..... 64.
Turbo Mouse *(for the MacPlus, SE & II)*..... 85.
Koala Technologies ... 90 days
MacVision *(digitizer)* ..... 175.
Kraft ... 1 year
3 Button Quickstick..... 39.
Migent ... 1 year
Pocket Modem *(ext. 1200 baud)*..... 169.
Mirror Technologies ... 1 year
Magnum 800 External Drive ..... 209.
Magnum Tape 20 Backup..... $899.
MagNet 30x *(w/cable)*..... 799.
MagNet 40x *(w/cable)*..... 1079.
MagNet 40/40 *(40 Meg, 40 Meg tape)* ... 2139.
Nutmeg Systems ... 1 year
Nutmeg FPD 15″ Monitor ..... 1395.
Nutmeg 19″ Monitor..... 1549.
Personal Computer Peripherals ... 2 years
MacBottom HD 21 Meg SCSI ..... 769.
MacBottom HD 32 Meg SCSI ..... 899.
MacBottom HD 45 Meg SCSI ..... 1159.
Optional built-in modems available ..... call
SoftStyle ... 90 days
MacEnhancer *(for plotters to printers)* ..... 175.
Systems Control ... 2 years
MacGard *(surge protection)*..... 55.
Thunderware ... 90 days
ThunderScan 4.0 w/Power Port..... 199.

DISKS

Sony 3½″ DS/DD Disks *(box of 10)* ..... 19.
Fuji 3½″ DS/DD Disks *(box of 10)* ..... 20.
MAXELL 3½″ DS/DD Disks *(box of 10)*.... 20.
Verbatim 3½″ DS/DD Disks *(box of 10)*.... 20.
3M 3½″ DS/DD Disks *(box of 10)*..... 21.

ACCESSORIES

I/O Design
Imageware II *(Imagewriter II carry case)* .... 49.
Macinware Plus *(Mac Plus carry case)* ..... 69.
Macinware SE *(Mac SE carry case)* ..... 79.
Kalmar Designs
Teakwood Roll-top Case *(holds 45 disks)* ... 14.
Teakwood Roll-top Case *(holds 90 disks)* ... 21.
Moustrak
Moustrak Pad *(standard 7″ x 9″)* ..... 8.
Moustrak Pad *(large 9″ x 11″)*..... 9.
Sensible Softworks
Quality "MacAttire" nylon dust covers.... 7-17.
High Trek Mac Plus carry case ..... 59.
High Trek Mac SE & extd. kybd. carry case 69.

OUR POLICY

- We accept VISA and MASTERCARD.
- No surcharge added for credit card orders.
- Your card is not charged until we ship.
- If we must ship a partial order, we never charge freight on the shipment(s) that complete the order.
- No sales tax.
- All U.S. shipments insured; no additional charge.
- APO/FPO orders usually shipped 1st Class Mail.
- Allow 1 week for personal and company checks to clear.
- UPS Next-Day-Air available.
- COD max. $1000. Cash or certified check.
- 120 day limited warranty on all products.*
- To order, call us anytime Monday thru Friday 9:00 to 9:00, or Saturday 9:00 to 5:30. You can call our business offices at 603/446-7711 Monday through Friday 9:00 to 5:30.

SHIPPING

Note: Accounts on net terms pay actual shipping.
Continental US: Barring massive computer failures and other natural or unnatural catastrophes, all non-C.O.D. orders phoned into MacConnection by 8 PM EST will ship Airborne the same night for next day delivery, except for those within UPS Ground Zone 1 (which is also an overnight service). The total freight charge on any order placed with MacConnection is now $3. Backorders will also ship Airborne overnight at no additional charge. Some areas require an additional day delivery. **Hawaii, Alaska and Outside Continental US:** Call 603/446-7711 for information.

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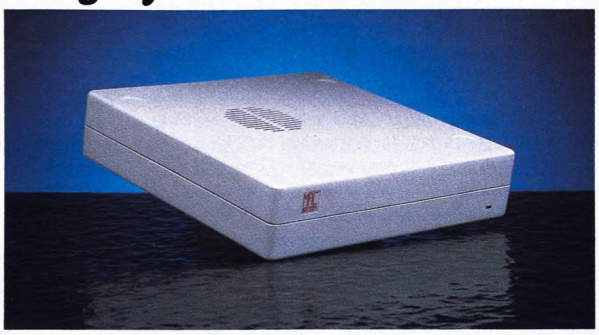
*All items subject to availability. Prices subject to change without notice.

Bowzer!

Megabytes and Modem in one!



MacBottom SCSI Drives can solve two of your system enhancement problems in one simple swoop. Not only do they pack 21, 32, or 45 megabytes (take your pick) in one very light *(but not lightweight)* package, but for a mere pittance you can get a Hayes compatible 1200 baud modem built right in. MacBottoms all arrive completely formatted. Here's what you have to do to get up and running. Pay close attention! 1. Take MacBottom out of box and place under Mac. 2. Plug it in. 3. Connect the cables. 4. Select the SCSI address. 5. Turn it on.

Of course, you can do some pretty fancy things with your new drive, especially with the software that comes with it: print spooling, floppy disk duplicator, a backup program and other utilities. Personal Computer Peripherals sells each one with unlimited technical support, a complete upgrade policy, and a 2-year warranty.

Available in either platinum or beige color. Please specify.

Personal Computer Peripherals ... 2 years

MacBottom HD 21 Meg SCSI **$769**
MacBottom HD 32 Meg SCSI **$899**
MacBottom HD 45 Meg SCSI **$1159**
Optional Built-in 1200 baud modem (available for each unit) ..... **$call**

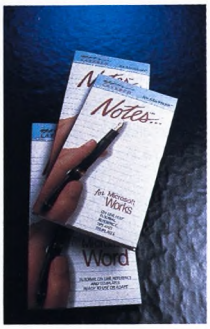
Better reflexes.

Reflex (the multi-file database with organizing, reporting, and analyzing capabilities) has been cranked up a few notches with some significant new features: macros, auto-save, a powerful GroupBY function that groups records as you need them, and the capability to calculate fields as you enter data. There are also new multiple-entry forms as well as default formats—you can even enter data for more than one database from within a single form. Reflex Plus is the perfect way to turn all that disorganized data into useful information.

Borland's Reflex Plus (not copy-protected, for 512, 512E, MacPlus, SE & II) **$165**

Behind the screens.

There's nothing more useful than having a real live expert nearby when you're using an applications program. Notes are the next best thing. They're available for Excel, Microsoft Works, Word, and other programs. Each comes with three different levels of *on-line* help—for beginners, intermediate users, and experts. You'll have advice, tips, short cuts, and documentation always available. And there's a rapid reference feature so you can quickly find the help you need.



Layered (copy-protected)
Notes for Excel, Microsoft Works, or Word ..... each **$42**

$3 Overnight.

Do you know that practically all of the people we ship to receive their packages *the next day?* For only $3 per order. With our new Fly-by-Night℠ service, all you need to do is (1) phone in your non-COD order by 8 PM EST, (2) relax, watch TV or go bowling, (3) accept delivery of your order the next day. Because while you were asleep, your order was picked, packed, trucked, planed, sorted, and then some. To make sure you'd have it when you need it—in most cases, by noon.

The *only* exception would be in the event of extremely unnatural circumstances (i.e. massive computer failures, Marlow-wide power blackouts, etc.). Airborne Express handles the majority of our shipments and, in all but a few cases, will deliver the following day. Orders for delivery within UPS Ground Zone 1 will ship UPS and arrive the next day.

It's (safely) in the bag.

The Macinware SE bag is the ultimate luxury luggage for your Mac SE. It has padded pockets for mouse, cords, keyboard, and a special compartment for a disk drive, modem, or accessories. It's better padded than a left tackle and built just as solidly. So you can safely and comfortably lug your Mac SE across field, hills and valley. (Or, just to your car in the parking lot). It's available in navy blue or platinum grey.

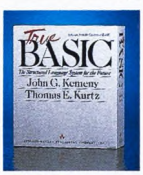
I/O Design
Macinware SE Carry Case **$79**

Modem clone.

It doesn't look like a modem. It looks like software— which it is. But ComServe can combine with a single modem to give an entire network telecommunications capability. You eliminate bundles of wire and bushels of expense, as everyone in your AppleTalk network can share a single modem.

Infosphere's ComServe 1.0
(not copy-protected, for 512, 512E, MacPlus, XL, SE & II) **$129**

True specials.



That big, better, and best BASIC, True BASIC, is particularly well-loved for its portability to other computers and wide range of control libraries that greatly simplify programming. This month we're offering a special on the package itself along with the 3D Library or Algebra I.

True BASIC (not copy-protected, for 512, 512E, MacPlus, SE & II) **$59**
3D Library or Algebra I (with purchase of above) **$25**

Artistic freedom.

Cricket Draw takes its graphics cue from the LaserWriter, not the Mac's display resolution. That means you can use a full 300 dots per inch when printing your drawings instead of a paltry 72. Big difference. Awesome difference. You can shade with a 0% to 100% gray scale, create shadows, logarithmic shading, starburst, grates, smooth curves, and just about anything else your left brain can dream up and convince your right brain it's worth doing. The output will blow both away.

(Figuratively speaking, of course).

Cricket Software (not copy-protected)
Cricket Draw (for 512E, Plus, SE & II) **$175**

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TEAM

Continued from Page 19

1982, when Fax Communications began using personal computers, dealers have been inept and have overplayed the ease of operating computers.

"I realized that it would be worth the extra money to have somebody configure it so everything works together — scanner, laser printer and special-purpose programs," Chickadel said. "We could have gotten things at a discount, but it didn't seem like the headache of configuring and installing the system would be worth it."

"I think that a lot of those criticisms have been valid in the past, and Apple's answer is Team Selling," said an Apple dealer sales representative in Maui. "We recognize our dealers have various capabilities, and by using the strengths of the dealers and our systems engineers, we can provide solutions. Also, Apple increased its outside support group by 30 percent since last March.

"Chuck Boesenberg (Apple vice president of sales and marketing) said in March he wanted all channel conflict ended by Oct. 1, and he effectively has ended it."

Suzanne Crocker, a Businessland spokeswoman, said: "There is a perception that not all dealers and stores can handle technical services support, but not all stores are the same. Businessland has 90 systems engineers and we have the resources to sell networking and connectivity.

"You need a systems engineer on that kind of a [corporate] sale for the consultation and installation," she said.

"In general, Businessland and Apple have shown that this kind of team relationship has been able to work reasonably well," said Richard Edwards, a limited partner of Robertson, Colman & Stephens, a San Francisco investment bank.

But while most analysts agree that the Businessland chain leads the pack in employee training, opinions differ as to the quality of its competition.

"Traditionally, the computer retail channel has not been geared to do [technical support], and the sales expertise hasn't been up to it," said Bill Lempesis, an analyst for Dataquest, a market research firm in San Jose, Calif. "A lot of dealers have fairly high turnover rates and lack the consistency Apple would find with its own sales force."

Jay Adler, a ComputerLand store salesman in San Francisco, said: "The important thing isn't for us to be experts; it's to have a handle on concepts and provide solutions. When I came in [a year ago], I didn't get an awful lot of training. But we have people coming in and doing presentations all the time."

"I think Team Selling is a very creative strategy," said Apple analyst Peter Rogers of Mabon Nugent, a New York investment bank. "It is also a necessity because they are avoiding channel conflict. Only IBM could get away with undercutting its own dealers."

"Apple has been quite different than IBM as far as being a competitor," said Businessland's Crocker. "IBM has a huge direct sales force whose job is to sell products we sell." ■

HYPERCARD

Continued from Page 19

stantial number of back orders.

According to dealers surveyed, most customers are simply peeved by the wait for their own copy of HyperCard. Others, however, are upset by what they see as a failed promise to deliver HyperCard with every Mac sold since Aug. 11.

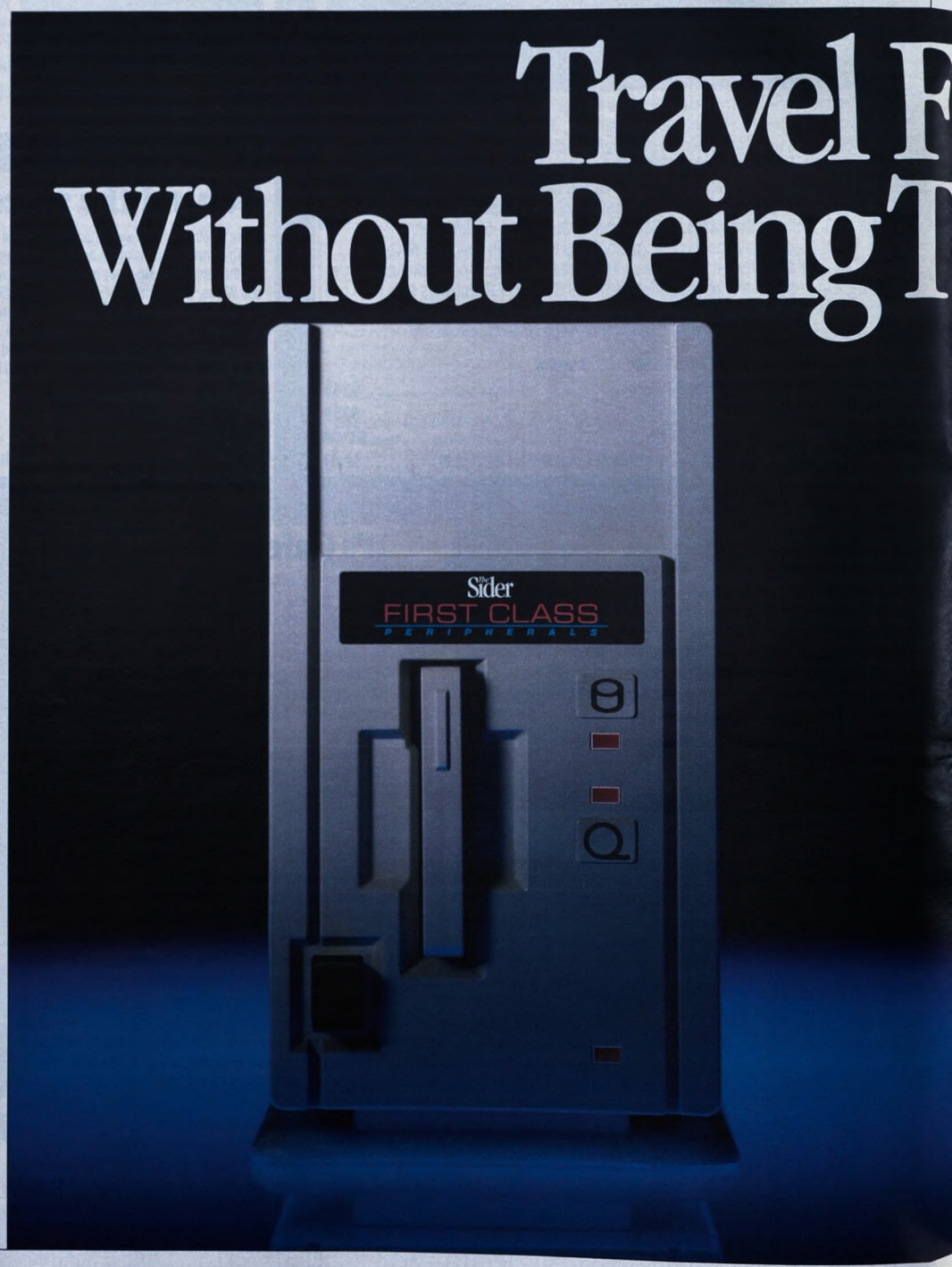
"It's a big disappointment, and I think it displays a profound immaturity in the industry," said Charles Chickadel, president of Fax Communications Inc. of San Francisco. "It seems like this is the way the industry had decided to work." Chickadel recently ordered a Macintosh through a value-added reseller who has been unable to get him a copy of HyperCard to go with his new system.

An unprecedented demand for the product seems to be the root of the problem. Apple's policy is that every buyer of a new Macintosh since Aug. 11 is owed a copy. The program has been bundled with every machine coming off the manufacturing line since then.

But many dealers have only Macs shipped before Aug. 11 in stock. To provide new owners with their copies, dealers have to tap the supplies intended for separate sale, leaving few, if any, available for previous users.

"There's been an awful lot of hype about HyperCard. People don't even know what they are ordering, but they want it," said a dealer who asked not to be named because he was concerned about an unfilled HyperCard order.

"It's to be expected. It's a $49 program that everybody wants," said William Stead, a sales representative of Clinton Computer of Clinton, Md. ■



Apple, DEC to show networking connections in joint exhibit

BY JON SWARTZ
MacWEEK Staff

PRINCETON, N.J. — Apple and Digital Equipment Corp. will showcase networking connections between their computers for the firs. time early next year at DEXPO East '88.

The exhibit, prompted by the participation of Apple-to-DEC networking software firms Kinetics Inc. of Walnut Creek, Calif., and White Pine Software Inc. of Nashua, N.H., at last year's show, is scheduled for Feb. 16-18 in New York.

In fact, DEC and Apple have indicated future joint projects. John Sculley, Apple president, chairman and CEO, said: "Apple users within the DEC environment are bringing us together. DEC users like working on Apple."

A show spokeswoman said DEXPO organizers hope to make the exhibit, called the Apple-DEC Computing Center, an annual event. Apple also has reserved space for an unspecified number of Apple value-added resellers (VARs), and 13 third-party vendors are scheduled to demonstrate Mac-to-VAX integration products.

So far, 14 vendors have reserved space for the exhibit, including TOPS, A Sun Microsystems Co. (formerly Centram Systems West) of Berkeley, Calif.; Odesta Corp.of Northbrook, Ill.; Kinetics; and White Pine Software. ■

irst Class
aken For A Ride.

Introducing Our Latest Sider, Model C46. 40 Megs Primary Storage. 60 Megs Integral Tape Backup. $1995.00 Total.

First, The Problem.
Apple is telling the world these days that the power, versatility and compatibility of the new Macintoshes are going to end forever any doubts that these are first-class business machines.

But what kind of business you actually get down to has as much to do with the peripherals you attach as it does the computer itself. Take mass storage. For many companies, serious business means nothing less than 40 megabytes of primary capacity and at least an equal amount of backup — ideally in the same subsystem package.

A few packages do exist with those specifications. But the price tags are absolutely stratospheric — which for many companies anxious to get down to business can be downright catastrophic.

First Class, The Solution.
The Sider Model C46 changes all of that. Sure, you get capacity, speed, performance, reliability, backup and restore. You get a slim, smart-looking, easy-to-install unit that is compatible with the Macintosh Plus, SE and II — and the Apple II+, IIe and IIgs as well. And with our 60 meg tape (not 40 meg, like the competition), you get backup you can lock up for security and, thanks to total Sider cartridge interchangeability, you get data you can pack up and take anywhere.

But what you get that really astounds is a price tag the others can only envy. It reads $1995.

It also reads First Class Peripherals, for those of you wondering how that price could possibly be attached to this product. For years, the names "Sider" and "First Class" have been synonymous with truly affordable, zero defect mass storage among Apple II users.

Now, we intend to establish the same standard in the Macintosh world. With a family of subsystems that includes, besides the Model C46, both a 20- and 40-megabyte hard disk Sider subsystem and a Sider 60-megabyte tape backup subsystem.

Call us toll free for the name of the First Class Peripherals dealer nearest you. And find out for yourself how easy it is to get down the price of getting down to business.

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CALENDAR

OCTOBER

26-28 — **CEPS/Fall Corporate Electronic Publishing Systems** (Boston)
This conference and exhibition with more than 130 vendors will feature products and systems for desktop, workstation and dedicated publishing. Exhibitors include IBM, Apple, DEC, Wang and other major developers. The four conference tracks will address CEPS management issues, desktop-publishing trends, product distribution opportunities and CEPS' impact on traditional publishing and printing industries. Contact: Customer Services at (203) 964-8287.

27-29 — **CASES Computer-Aided Software Engineering Symposium** (San Francisco)
Conference features a one-day session on the trends, characteristics, components and issues of CASE technology, and two days of product presentations from companies such as Abvent, DEC, Arthur Young & Co. and Knowledgeware. Contact: Digital Consulting Inc. at (617) 470-3870.

27-30 — **EDUCOM '87** (Los Angeles)
Conference will feature sessions and seminars on supercomputing, desktop publishing, software evaluation, BITNET, campuswide and wide-area networking, and writing centers. The three-day event is sponsored by Apple, AT&T, DEC and IBM. Contact: EDUCOM at (609) 734-1647.

NOVEMBER

2-6 — **COMDEX/Fall '87** (Las Vegas)
Apple will appear at this premiere microcomputer exposition. Contact: the Interface Group at (617) 449-6600.

9-13 — **Advanced Systems Analysis** (San Francisco)
This five-day course is designed to show experienced systems analysts how to break away from a "bits and bytes" perspective and view operations from a business point of view. The program is aimed at systems analysts, lead programers, project leaders and executives involved in systems-related assignments, focusing on strengthening analytical skills and techniques for systems analysis and design. Contact: Charles D. Black at the Association for Systems Management at (415) 428-4786.

9-12 — **NCGA Mapping & Geography Information Systems '87** (San Diego)
Sponsored by the National Computer Graphics Association, the conference and exposition will highlight automated mapping and geographic information systems. More than 25 vendors are expected to exhibit. The conference portion will be divided into three program areas: automated mapping/facilities management (AM/FM), geographic information systems (GIS) and energy mapping. Contact: Bob Cramblitt at (703) 698-9600.

Send calendar events to: Clair Whitmer, MacWEEK Calendar, 525 Brannan St., San Francisco, Calif. 94107.

Look-and-feel rules could impede innovation

It's the silly season in the long-running look-and-feel debate.

Two of the industry's leading litigators, Apple and Lotus Development Corp., can't agree on how deeply to plunge the knife in their efforts to kill off software competition.

They both want it dead, all right. The debate last month before the U.S. Copyright Office was a disagreement over tactics, not purpose.

The question on the floor is: Are copyrights granted for original works of software sufficient to protect authors from imitation of screen images, or should separate copyrights be available to cover displays? It's a question arcane enough to keep scores of lawyers employed for the next few months.

To Apple, it's a simple matter of grabbing whatever protection it possibly can. If the Copyright Office would give coverage to the sound and smell of a computer as well as the look and feel, you can bet Apple would be first in line applying for it.

Lotus counters that adding coverage for particular aspects of programs might weaken the overall protection granted for the underlying code. Lotus has at least three lawsuits riding on the belief that protection of code extends to on-screen appearance. This is no time to tinker with technicalities.

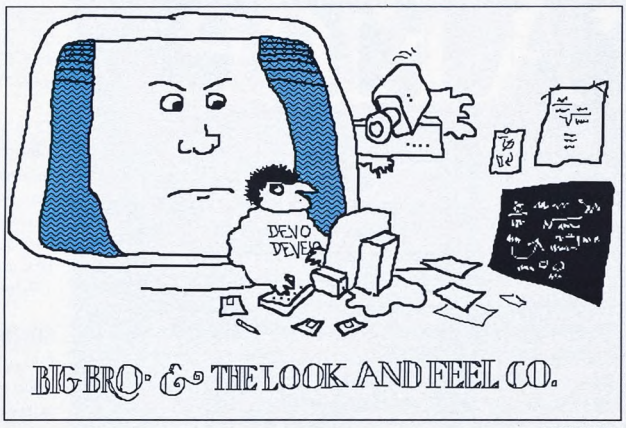
Neither company has the best interests of its users in mind. Of course, exact screen layouts and text should be protected from duplication. To allow byte-for-byte, pixel-for-pixel ripoffs would only serve to discourage developers from working hard to create innovative software.

But outright copying is already well protected by the current interpretation of the copyright law. An equally insidious outcome would result if the courts granted overly broad protections. Developers who originated a type of software or a technique for operating the software would own it for all time. Competitors couldn't refine, modify or imitate useful features.

Software evolves in a process of building on the successful ideas of predecessors. Broad protection would only serve to impede innovation. With broad interpretation, we might have no SuperPaint, no Ready,Set,Go!, no 4th Dimension. Or — how about a really scary thought — no Macintosh, since the Mac interface is really a Xerox innovation. Apple is already facing the loss of some of its uniqueness because Microsoft has created a similar graphical interface for the dreaded PC. (Apple saved face by getting Microsoft to agree to license the concept.) What Apple is up to is making sure that the interface buck stops here, and God forbid it should ever appear on an Atari.

Protecting the interface is important for Apple but not for users. It is in users' interests for good programming ideas to spread as far and wide as possible. That's the fundamental public policy issue in the look and feel debate. A secondary priority in setting technology policy is to eliminate unnecessary red tape and keep lawyers as far away from software as possible.

On both counts — user interest and legal overinvolvement — screen copyrights are a bad idea. ■



LOUIS DUNN

TO THE EDITOR

BASIC environment

I enjoyed the article by Vernon Keenan (Window On Programming, Sept. 22) about programming the Mac in the corporate, as opposed to the commercial, environment, but I feel that he overlooked the most usable environment of all — BASIC.

We use an estimating system for highway and heavy construction that has evolved into a system of more than 10,000 lines of compiled BASIC. It does the number crunching; has the Mac features such as menus, buttons, dialogs, scrolls, command keys and multiple windows; and, best of all, actually works. We use Microsoft BASIC; however, Z BASIC and True BASIC offer very functional packages. MS BASIC for the Mac is as easy to learn as any other BASIC. It can be as "structured" as the user cares to make it, it offers easy access to the Mac Toolbox, and the compiled product runs fast enough to satisfy almost anyone.

For the individual who needs custom software, is not troubled by the "stigma" of a "toy" language and does not want to bother with variable declaration, colons, semicolons, superfluous BEGIN-END pairs or curly braces, but simply wants to get the job done, BASIC is worth a look.

Wayne D. Wands, project manager
Boh Bros. Construction Co. Inc., New Orleans, La.

Software protection

I object to the Software Publishers Association advertisement on Page 29 of the Sept. 29 issue. The ad says it is illegal to copy unprotected software except for backups.

Not so! It is only illegal to copy properly copyrighted software. Public domain and non-copyrighted software can be copied freely, despite what the SPA says. They should clarify their ad and stop adding confusion to the issue.

Anthony J. Oresteen
Batavia, Ill.

Send letters to MacWEEK, 525 Brannan St., San Francisco, Calif. 94107; or via MCI Mail to MacWEEK. Please include your name, title, company name, address and phone number.

Searching for a way to find files on a Mac hard disk

VISIBLE RESULTS

Steve Rosenthal

Someday I'll clean up my hard disk. But in the meantime, it's a good thing some clever folks have come up with programs that actually find missing files.

My hard disk isn't all that bad (nothing like the overflowing desktop that the computer sits on, to be sure), but I do a lot of jumping from project to project. If you do that, too, you'll know that once a few days or weeks go by between sessions working with a document, you can forget where you put it, or even what its name is and which program you used to create it.

The Mac's HFS (Hierarchical File System) with its folders and folders within folders helps keep files logically grouped and easy to locate if you have a limited number of items. But once you get dozens of folders and hundreds of files, HFS can be a barrier to efficient searching. If you have your files all arrayed in folders, that very hierarchy becomes a thicket of branches and leaves you have to traverse to make your search.

If you misplace a file but remember its name, there are a number of programs that can help. (See "Third parties join the search for missing documents," MacWEEK, Sept. 8, for a review of four of the most popular programs.)

I'm just as likely to have forgotten the file name as the location, however. Find File, the file-locating Desk Accessory that Apple now supplies as part of the Mac system software won't help in that situation; it only searches by file name and knows nothing about dates, file types or file contents.

Findswell from Working Software Inc. of Monterey, Calif., praised in MacWEEK's review for its ease of use and speed, knows only a bit more about files than Find File. You can only specify the file name or part of it as a search target.

HFS Locator from PBI Software Inc of Foster City, Calif., and DiskTop from CE Software of Des Moines, Iowa, on the other hand, do have multidimensional search definitions. Both let you specify file creation or modification dates and restrict the search to document type or accept all that match in other respects regardless of original creating program.

DiskTop is particularly strong in this respect, with a search specification screen that lets you specify any combination of name, file type, creator program, creation or modification date and even file size.

So even if all you can remember is that you did the file last week and it was about 4 Kbytes long, you have a good shot at finding it without a struggle. And if you're enough of a hacker to have caught on to file types and creator IDs for files, you can make use of that information as well. One particularly nice feature for those of us at the semi-hacker level is a choice of "Same Type as" that lets you replicate the creator or type from any existing program, allowing you to pick up the information from a similar file rather than forcing you to memorize what the sometimes cryptic four-letter combinations mean.

For times when all I can come up with is a snippet of the file content, I've been looking for a program that would look through my disk files and find any text that matched a search string, a feature included in a number of IBM PC packages.

I had hoped that a text-retrieval program called Sonar from Virginia Software Services Inc. in Midlothian Va., might do this job. This program finds files in a hurry based only on a string or string combinations that appear within the file, but it's more of a specialized text-retrieval tool than a general file-finding solution. Before you can search, you have to preprocess each file you want included, and it only searches for text, MacWrite, WriteNow, MORE, Word and Trapeze files.

Even if I could find a program that did an efficient full-disk search on content, date or any other factor, that still wouldn't solve the problem of keeping a neater and more logically structured hard disk. After all, one of my goals in this area is to need fewer searches rather than just make them easier to do.

On the IBM PC, there are more than half a dozen good, highly visual, interactive programs for ordering your files and folders, but I haven't run across one of similar caliber for the Mac. If you've got one, let me know. Until then, I'll continue playing hide and seek. ■

THE LONG VIEW

Lawrence Magid

Shortly after breakfast on Oct. 1, my wife told me the news. The Los Angeles area, 400 miles south, had just suffered an earthquake. Some buildings had collapsed and there were already reports of death and injuries. My thoughts immediately turned to my mother and sister in the area.

I picked up the phone, but despite repeated tries I got only a busy signal, indicating that all circuits to the area were in use. A call to an AT&T operator confirmed my suspicions. Long distance lines to Southern California were jammed; local phone service, as far as she knew, was still working.

From experience, I knew that it might be possible for someone in the Los Angeles area to call my mom even though I couldn't reach her by long distance. But every call I made to the area yielded the same incessant busy signal.

I turned to my Mac for help. My first hunch was to get on CompuServe to see if I could reach someone in the Los Angeles area via CB, CompuServe's electronic party line. Perhaps I could persuade a Los Angeles-based user to make a local call and report back on my mom's situation. I put out a call for help, but no one in the Los Angeles area was using the CB channel at the time.

Then I turned to MCI Mail and sent an urgent plea to a friend who checks his mail on a regular basis. The connection to MCI Mail involves a local call to a "switch" that sends the data via a special data communications network (called a packet-switching network) from the local area to the service's mainframe system near Washington, D.C.

I posted the message, hoping my friend would soon get on line and read his mail. He did, and he was able to get my message, call my mother and report that everything was OK.

The experience gave me a fresh perspective on the potential role of computer information services in times of local or national emergency. With long distance service unavailable, the computer link, via a packet-switching network, became a viable alternate channel. What's more, computer data travels more efficiently than voice, which can be very important during an emergency.

Of course, on-line services are also vulnerable to disruption during an emergency, but they offer an alternative that could be essential at such times. In this case, the problem wasn't damaged lines but overburdened long distance networks. The computer network passed my message to an otherwise inaccessible area.

Using an on-line service to exchange information during this emergency makes me even more concerned about the potential impact of the Federal Communication Commission's proposed plan to add an access charge of $4.50 per hour to the cost of using such services.

The charge would almost double the cost of some services, possibly driving some providers out of business or at least limiting the growth of the nascent data communications industry.

Instead of setting up roadblocks, the FCC should be nurturing the industry's growth. There are many reasons to support the argument that the industry is in the national interest, but I've just added civil defense to my list.

I admit that this was not a life and death situation — I just wanted assurance that my relatives were all right. But I can envision cases when the timely passing of information could save lives or property.

One action the federal government could take, with the cooperation of the on-line industry, is establish an emergency communications system similar to the emergency broadcast system for radio and television stations.

Computer services that use interstate packet-switching networks could be required, or at least strongly encouraged, to offer emergency channels. An option could be added to the main menu, allowing users to obtain vital information or communicate with a live operator who, via an interactive chat mode, could assess a problem and provide assistance during emergencies.

If you agree with the idea of establishing such emergency channels, send E-mail to your favorite on-line service and a copy to me (MCI Mail "LMAGID"/CompuServe 70665,140). But first, write the FCC (1919 M St. N.W., Washington, D.C. 20554) against the proposed access charge. Oct. 26 is the deadline for public response. ■

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WINDOW ON HIGH-RESOLUTION MONITORS

MACINTOSH DISPLAYS ARE GROWING UP

About the photo: The image shown on the above 1,024-by-768-pixel Spectrum high-resolution monitor from SuperMac Technology was produced by Duane Maxwell, using a fractal generating program running on a Levco TransLink parallel processing board for the Mac II.

All four of the classic microcomputer applications — word processors, spreadsheets, database systems and communications — can profit from a larger screen.

BY MARK L. VAN NAME
and WILLIAM B. CATCHINGS
Special to MacWEEK

One of the earliest and most persistent criticisms of the Macintosh has been that its screen is too small.

Macintosh users counter this complaint by pointing out that the Mac's text and graphics are crisp, clear and flicker-free, and that the small screen helps make the Macintosh transportable.

Today, however, there are products to meet the need for a larger high-resolution screen. Some, notably the Full Page Display from Radius Inc. of Sunnyvale, Calif., and the MegaScreen from MegaGraphics Inc. (formerly MicroGraphic Images Corp.) of Canoga Park, Calif., work with earlier Macintosh models. Many more are being built for the Mac II.

Rather than include a monitor, the Mac II uses its NuBus expansion bus to accept video cards that drive their corresponding monitors. It even can support several monitors acting as if they were one larger display. Apple offers one Mac II video card, with either a monochrome or a color monitor, and other companies are offering competing high-resolution displays.

COURTESY MEGAGRAPHICS

The resolution of a display can be defined in two ways. One is the number of dots, or pixels, on the screen. This is usually expressed as the number of horizontal pixels multiplied by the number of vertical pixels. The normal Macintosh monitor has a resolution of 512 by 348 pixels, while the high-resolution LaserView from Sigma Designs Inc. of Fremont, Calif., offers 1,664 by 1,200 pixels.

The other commonly used measurement is the number of dots per inch (dpi) on the screen. The Mac screen has 72 dpi, while other Macintosh monitors range from 69 dpi for the Apple Color Monitor to 150 dpi for one model of the LaserView.

In general, larger monitors provide higher resolution. The most common measurement of monitor size is the diagonal length of the screen. The original Macintosh screen is 9 inches, Apple's Mac II monochrome and color monitors are 12 inches and 13 inches, respectively, and some high-resolution monitors are as large as 19 inches. A bigger screen, however, does not always have a higher resolution.

This is because resolution is determined by two major components: the display itself and the video card that drives it. A video card contains hardware, firmware and screen-display memory that control the number and configuration of pixels that the card sends to the monitor.

The monitor, in turn, displays that input signal. Consequently, monitors of the same size can have different resolutions. For example, two video card and 19-inch monitor combinations, or video systems, currently available are the 1,664-by-1,200-pixel LaserView from Sigma Designs and the 1,024-by-768-pixel Spectrum from SuperMac Technology of Mountain View, Calif.

More pixels give you room on the screen for more and bigger images. The number of pixels that make up a particular image, however, does not change. For example, if an icon like the Trash Can takes about one-half inch of space on a normal Mac monitor, that means it is represented by 36 pixels — half of the Mac's 72 dpi. If you put that same 36-pixel icon on a display with 150 dpi, it will take up only about a quarter of an inch. It appears smaller because of the higher resolution.

Despite this minor problem, the main advantage of a high-resolution video system is obvious: You get to see more at one time. Almost every application can benefit from having more information on the screen.

Benefits of larger screens

All four of the classic microcomputer applications — word processors, spreadsheets, database systems and communications programs — can profit from a larger screen.

The benefit to word processing is clear: You can see more text, so you spend less time scrolling around in the document. You also have the chance to see pages as they will appear on paper because many high-resolution systems can display one or even two complete pages of text at once.

With a spreadsheet program, you can see bigger worksheets. Once again, by having more information on the display, you have to scroll around the worksheet less. The main advantage for database systems is being able to design display forms and reports that contain more data and more closely resemble their paper counterparts.

Communication packages benefit from such video systems in less obvious ways. One is that you can keep on the screen both a communications session and an editor with which you are preparing a note for transmission. Some products also allow you to use the additional screen area to have multiple terminal sessions active at once or to emulate larger graphics terminals, such as some of the graphics displays from Tektronix Inc. of Beaverton, Ore.

Other common applications also can be helped by higher-resolution video systems. With integrated software packages such as Works from Microsoft Corp. of Redmond, Wash., you can use the larger display area to keep several components on the screen at once. You can have an editing window, with another window showing a graph of a spreadsheet and a list of names and telephone numbers in still another.

Program development can become much simpler. Think about how nice it would be to have the source code for two or three modules on the screen at once or to see large windows for the source code trace, breakpoint list and variable display functions of a debugger.

> Almost every application can benefit from having more information on the screen.

Graphics use

Two of the applications most often associated with the Macintosh — graphics and desktop publishing — also are two that benefit most from these displays. You can view whole images on the screen rather than work on them in pieces. You can see an entire graph or slide as it will be printed, or look at a much larger section of a CAD display than could be shown on a smaller monitor. Desktop publishers can view complete pages, text and graphics as they evolve.

The biggest drawback to high-resolution monitors is their price. They start at around $1,795, and you can easily spend $3,000 or more. Unless you use your Mac for many hours each day, it can be hard to justify this expense.

You also have to consider the impact on your Macintosh. With a Mac II, everything is simple: Drop a card in a NuBus slot, hook up the monitor and it is ready to go. The expansion slot on the Mac SE also makes it easy to

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Productivity rises with big picture

Graphic artists, like most employees, strive to improve their productivity. Leonard Rifkin, an on-site graphics artist for the McDonnell-Douglas Research Laboratories in St. Louis, realized that using a high-resolution Macintosh monitor could spur the productivity of his graphic arts group. The monitor chosen for the job was The Big Picture from E-Machines Inc. of Tualatin, Ore.

Rifkin's group performs a variety of services for the research scientists at their laboratories. They create view-graphs, slides, posters and other graphics for presentations in either color or black and white. They also put together reports and conference papers.

Prior to August 1986, before becoming a Macintosh user, Rifkin was a board illustrator whose projects involved physical artwork.

Moved to provide the best possible services for its scientists, McDonnell-Douglas assigned him exclusively to the research laboratories and put him on-site with the scientists.

Rifkin uses computers to make the artwork and import scientific data from the host systems, primarily Digital Equipment Corp. VAX computers. "Our department is a firm believer in using computers for graphics," Rifkin said. "For the past 13 months, I've been on a computer, and for the past 10 months I've been on site. I wouldn't have it any other way."

Screen size limits

His department has several Mac Pluses and a few Apple IIs and plans to get more computers. After working with the Macintosh for several months, Rifkin noticed that he wasted time working around the limitations of the screen size. After analyzing his work habits, he presented a report to his management. The results convinced them to let him investigate high-resolution monitors. "I spend about 6.5 work

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COURTESY SIGMA DESIGNS

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upgrade, although you have only one slot, so you have to use it wisely.

If you are one of the many owners of earlier Macintosh models, however, you may have to change your Macintosh in ways that can void its warranty. The high-resolution video systems for such Macintoshes typically are installed either by soldering a connection to the Mac's central processor, the Motorola 68000 chip, or by replacing the 68000 with a card and then plugging the 68000 back into a slot on that card.

Some of these systems also include a fan because the extra circuitry in your Macintosh can cause it to run hotter. The additional card also can take up the space in your Macintosh that might have been filled with a hard disk.

Other concerns

The final problem with adding a high-resolution monitor to your Macintosh concerns software, not hardware. Some programs will not take advantage of the extra screen size. Those that obey Apple's standard Macintosh programming guidelines will do fine. Such "well-behaved" applications do not assume a screen size and, instead, ask the system for the screen size and act accordingly. Some programs assume a screen size and will not open a window bigger than that.

Often, however, applications will let you expand their windows or drag them to other positions on the screen. Some applications, including many games, will not take advantage of bigger screens in any way.

Fortunately, the Mac II's lack of a standard video card is likely to prompt software vendors to make sure their products are well-behaved. The number of programs that do not work well with high-resolution displays is certain to shrink.

If you decide that you are ready to get a high-resolution display, the first major choice you must make is whether to get a portrait or a landscape display.

A portrait display is vertically oriented, so that it is taller than it is wide. Radius' Full Page Display and the monitor from Nutmeg Systems both follow this display model. Portrait displays are particularly well-suited to word-processing applications because they usually allow you to see an entire 8.5-by-11-inch page at once.

A landscape display is oriented the other way; it is wider than it is tall. Nearly all of the other Macintosh high-resolution monitors are of this type, including The Big Picture from E-Machines Inc. of Tualatin, Ore.; MegaGraphics' MegaScreen; Sigma Designs' LaserView; and SuperMac Technology's Spectrum and Graphix.

> Try to test-drive the monitors with the same applications you use at work and, ideally, in the same type of light.

Try to test-drive the monitors with the same applications you use at work and, ideally, in the same type of light. Different monitors behave differently under fluorescent or incandescent light.

They also vary in the sharpness and brightness of the text and images they display, particularly at the edges, and in the brightness and quality of their colors. The tint of the screens differ because some display a purer white than others. All can consume a great deal of space on your desktop, although their footprints vary. Make sure that your particular applications can take advantage of the larger screen.

Most companies still bundle their video cards and monitors into one product, but many are beginning to offer them separately. If you elect to combine a video card and a monitor from different sources, be very sure that they work together. If possible, get your dealer to show them in action. Many combinations will not work.

Some combinations will work but will not display images as clearly as possible. For example, the Apple Color Monitor is a specially designed Sony Trinitron monitor. If you connect an off-the-shelf Sony Trinitron monitor to the Apple Video Card, you will get an image that is not as crisp and clear as the one on the Apple monitor.

Finally, all the monitors offer software options that can make them more suitable for

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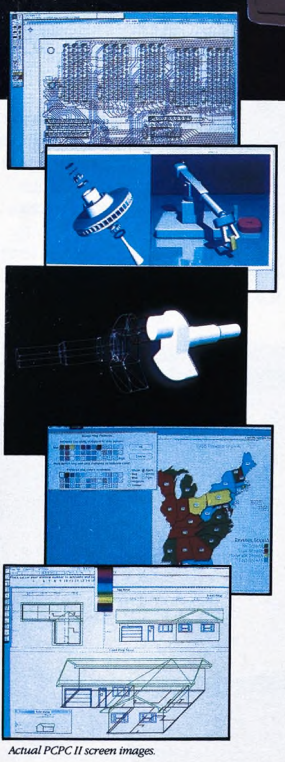
The best color graphics display for the Macintosh II



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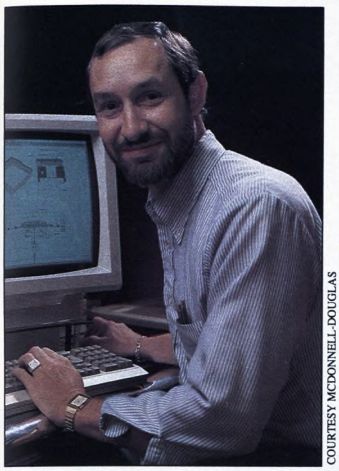

COURTESY MCDONNELL-DOUGLAS

Leonard Rifkin: "The work is finished more quickly and with greater accuracy" with the larger monitors.

PICTURE

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hours each day in front of a computer, of which about 1.3 hours are spent scrolling and reducing the image and looking around the screen because of the small screen size. That comes out to about 300 hours per year spent scrolling. That figure, times the hourly rate, gives a cost that makes it easy to justify a large monitor," he said.

After researching the market, he contacted E-Machines, which sent him a prototype of its 17-inch landscape monitor, The Big Picture. He is still using that monitor, and since then the department has bought five more and plans to purchase additional monitors next year.

The larger monitors have paid off to everyone's satisfaction. Rifkin's users are pleased by how quickly and easily they get to see the early drafts of his work. "The work is finished more quickly and with greater accuracy. They can sit next to me at the computer and tell me anything they want changed," Rifkin said.

Savings also are realized because Rifkin works faster and closer to the form he eventually produces on the page. "The large-screen monitor gives you a full view of the artwork. The Mac screen shows only a portion of the image, so you spend most of your time scrolling around looking at parts of the images. Basically, you're producing the art more quickly, so the dollars per piece is lower," he said.

Rifkin also finds the larger display easier on his eyes than the original Mac screen. The difference in dots per inch — the Macintosh has 72 dpi, The Big Picture has 82 dpi — does not cause the icons or cursor to shrink enough to bother him. He often finds the extra resolution extremely useful. "If you're just doing a word chart, you don't see any resolution difference. If you're doing a drawing, the extra resolution is very nice," he said.

He also stated that the portrait display mode, while useful for some applications, is not the best for his needs: "The horizontal screen format, I believe, is going to be the best overall for computer artists. I can get a whole page on screen and even blow it up one level. The vertical format might be better for desktop publishing."

Rifkin's group has improved its productivity and saved money despite the cost of their high-resolution monitors. Their clients are happy they get their graphics so quickly. "As far as the screen goes, I couldn't be more pleased. Not only do you produce more artwork, it's much easier on the illustrators," Rifkin said. — *By Mark L. Van Name and William B. Catchings*

MONITORS

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your daily work. A screen saver is particularly important because at these prices you do not want to burn an image into a large monitor and have to replace it. Some provide several standard cursor and font sizes, which can make reading the display easier.

Primarily because of their relatively high prices, high-resolution monitors clearly are not for everyone. If you are content with the size of your Macintosh's screen or if you do not use your Macintosh for many hours each day, you probably do not need one.

If you have the money or you are a steady Macintosh user who will ultimately save time and money by buying a high-resolution monitor, you are in for a treat. The additional screen space is very useful in most applications.

Despite the high price, more and more Macintosh users are turning to high-resolution displays to make their work easier and more enjoyable. ■

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ThunderScan: A little scanner that can

ThunderScan 4.0

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Strengths: Saves gray-scale information as gray map for actual halftoning and flexible printing; streamlined user interface; can scan resolutions higher than 72 dpi; low price. Weaknesses: significantly slower than stand-alone scanners; generates large files; problems with customer support.

BY PHIL INJE CHANG
Special to MacWEEK

ThunderScan, the inexpensive "scanner for the rest of us," has been one of the most popular Mac peripherals since it first appeared in November 1984. Version 4.0 doesn't look much different from the previous ones — the heart of the system, an optical digitizer that mounts in place of the ribbon cartridge in an ImageWriter printer, remains unchanged.

What's new is that the sophisticated imaging abilities planted in the device years ago by creator Andy Hertzfeld have at last been unleashed. The "eye of the Mac," regarded by some as little more than a toy, is suddenly capable of generating output that approaches magazine quality.

ThunderScanning is as slow as ever, and unless you have a Mac II, you still won't be able to appreciate the quality of ThunderScanned images on screen. But with the new software, you will be able to save your scans in a variety of standard formats, transfer them into popular desktop-publishing applications and end up with stunning high-quality images with up to 32 levels of gray shading.

Every ThunderScan package now includes a Power Port, an adapter that provides an elegant solution to the problem of operating a device designed for the original Mac off the streamlined — and powerless — printer port of the Mac Plus and SE. (Mac II users must still buy an accessory and cable for an additional $49.)

The new software has options for saving scanned images as PICT, TIFF (Tag Image File Format) or EPSF (Encapsulated PostScript) files, in addition to MacPaint's bit-mapped format and ThunderScan's native format. A new Lasso tool makes it possible to select irregular shapes for editing, cutting and copying. With the new WYSIWYG print interface you can enlarge images proportionally on screen. New print routines turn ThunderScan images into much more sophisticated output from Post-Script-driven output devices. Instead of the 300-dpi bit maps it used to produce, it now lets PostScript produce halftone cells at the maximum resolution of the printer. From a Linotronic the results look almost like photographs.

Actually, the most significant changes reflected in this new incarnation of the original Mac scanner have little to do with the product itself. The overriding fact in the world of desktop publishing is that aesthetic expectations are maturing just as fast as the hardware and software tools.

Since ThunderScan was first introduced, Aldus has spearheaded the acceptance of TIFF as a standard format for scanned images. LaserWriters are now in wide use, and more often users are seeking even higher resolution output. The new ThunderScan is above all a response to these rising expectations and capabilities.

ThunderScan gray-scale images can be imported into PageMaker 2.0, Ready, Set,Go! 4.0, and Quark XPress and cropped and sized to fit the finished page.

First, gray scale

ThunderScan has always supported gray-scale imaging, a format for bit-mapped data that specifies the actual gray level of each dot or pixel. Because its slow ImageWriter-based scanning speed allows a wide data bandwidth, ThunderScan can store 5 bits per pixel — 32 shades of gray. This not only provides a pathway to higher resolution printing but also allows image retouching without the labor of love involved in FatBits editing.

Currently, there is a trade-off between scanning speed and image manipulation capabilities, although high-speed gray-scale scanners are due from several vendors within a few months. At present most 300-dpi desktop scanners scan a letter-sized page in less than five minutes, but they save a dithered halftone, not a genuine gray map, for continuous-tone images like photographs.

This means two things: First, the printed photo will look somewhat chunky, and not bet-

From Botticelli to balloons in GrayView

Eight hours after the arrival of his Mac II in July, David Fry was hard at work on GrayView — a new program designed to display ThunderScan's SCAN files with true grays on the new Mac monitor. Between graduate studies and teaching responsibilities in the math department at Harvard University, Fry, a staunch fan of ThunderScan, had generated a large collection of images with ThunderWare's optical digitizer. He knew that in these scans lay true gray-scale information about the original image — 5 bits worth or enough to distinguish 32 shades of gray.

But the grays could neither be displayed on the classic Mac screen nor printed out (except with Knowledge Engineering's JustText, a relatively uncommon and difficult program). Like most ThunderScan owners, Fry could only use MacPaint bit maps of his scanned images — nice but far from photographic quality.

A week and a half after he began, Fry had completed an original version of GrayView. He uploaded it to the Mac II data library in CompuServe's Mac Users' Forum, making it available free of charge (except for the on-line connect time). Since the program is compressed to only 41 Kbytes, the expense is modest.

GrayView simply opens SCAN files, converts them to a new file-type ("gray") and displays them with 32 shades of gray on screen. (You can also use it to view PICT files in black and white or color.)

You need a Mac II, of course, and to take full advantage of the program, you'll have to have added video RAM to support the 256-color option. You'll also want plenty of memory and disk space because SCAN and GrayView files are enormous.

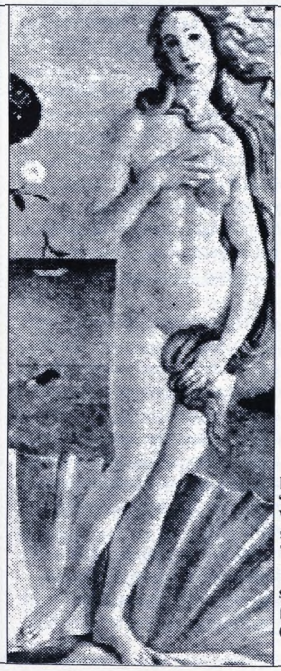
But if you have the hardware, you will enjoy the view. Scanned photos and paintings displayed with GrayView are richer with shading subtler than all other graphics on a personal computer monitor. Even if you don't have ThunderScan, you can have such images on your Mac II. Fry and other pioneers have posted some spectacular examples, ranging from Botticelli to balloons.

GrayView isn't Image Studio — it has only a few of the gray-shade editing features of the forthcoming Letraset program. GrayView does let you select and copy or save any rectangular portion of the scan, and it allows you to save images in MacDraw PICT format or as PICT resources with ID=0, so you can reopen them or use them as startup screens.

In two weeks in September, Fry produced a completely new version of GrayView, this one destined for commercial release later this year. The publisher has not yet been announced, but Fry said the price should be less than $100.

The enhanced version has a variety of new tools for editing images and adding color. You can lighten, darken, invert or tint regions; blur edges; filter out scanning imperfections; and pencil or paint with colors chosen from a palette or picked up from part of the image. You can even remap selected shades of gray to other colors. The new version will save in (but not read) TIFF format — an option that will make it possible to use edited scans in desktop publishing programs.

The current version of, GrayView, 1.15, is available on CompuServe, GEnie and many other bulletin boards. —*Henry Norr*



Botticelli's "The Birth of Venus" (1480), scanned with ThunderScan, selected and saved in PICT format from GrayView.

ter from a Linotronic than from a LaserWriter. ThunderScans, on the other hand, come out of PostScript imagesetters like the Linotronic with a much better approximation of the continuous-tone original.

The second problem with other scanners is that changing contrast and brightness requires a new scan. You spend time doing multiple scans or drowning in an endless checkerboard sea of FatBits — and gray images never really get any better. ThunderScan does have a FatBits feature, but with gray-scale data it can support other and easier touch-up capabilities as well. Any portion of an existing scan can be re-halftoned with a different contrast, brightness and gray map. (Neither the magnification of the scan nor the area scanned can be changed after the fact.)

Be forewarned: ThunderScanning an image can take a good while. In the worst case, processing an 8- by 10-inch image (ThunderScan's maximum size) scanned at 400 percent magnification requires some 40 minutes. At 100 percent magnification, a scan of similar size takes an average of 15 minutes, even with bidirectional scanning.

You will need space as well as time. When the gray map does not fit in memory, ThunderScan will write it to disk. According to the User Guide, the bit map and gray map for one image of maximum size may add up to as much as 2 Mbytes, even though the software performs some data compression. A hard drive is a virtual necessity.

Next, TIFF

Thanks to the TIFF standard, ThunderScan gray-scale images can be imported into PageMaker 2.0, Ready,Set,Go! 4.0 and Quark XPress,then cropped and sized to fit the finished page. Image Studio, the forthcoming Letraset program, will offer further possibilities for editing the scanned graphics.

Hertzfeld's implementation of TIFF is unique in some respects, but ThunderWare said any application that can read other TIFF files can handle ThunderScan's images. You can also save images in Encapsulated PostScript Format, though this usually requires more disk space for high-resolution bit maps.

High resolution?

How high does ThunderScan go? It increases resolution by increasing magnification — at 100 percent magnification, it will scan at 72 dpi. At 200 percent magnification it records twice as many dots, and on screen the image will appear twice as large as in the original. Printing such a file at 50 percent, however, results in an image of the same size as the original, but with twice the resolution.

The specs recommended by ThunderWare for reproducing continuous-tone images at the original size with optimum use of disk space and printer resolution are: 200 percent at 50 percent on the LaserWriter, 300 percent at 33 percent for the Linotronic 100, and 400 percent at 25 percent for the Linotronic 300. Dots per inch is a different issue with gray scale and halftones; use these line screen frequencies for the same printers: 50, 100, and 120 to 150, respectively. For printing on the LaserWriter, line art images should be scanned at 400 percent and printed at 25 percent.

Ease of use and performance

Niceties like "auto-auto-scrolling" (give a push with the mouse and the image keeps moving in the same direction until another click) seem to carry Hertzfeld's signature. Dialog boxes arise in an orderly sequence from a minimum of menu commands. On the hardware side, the scanner is a reliable workhorse. You can adjust the original's squareness in the ImageWriter's roller-feed mechanism manually before scanning, which is vital for line art with straight edges, unlike most roller-feed scanners.

Good documentation, questionable support

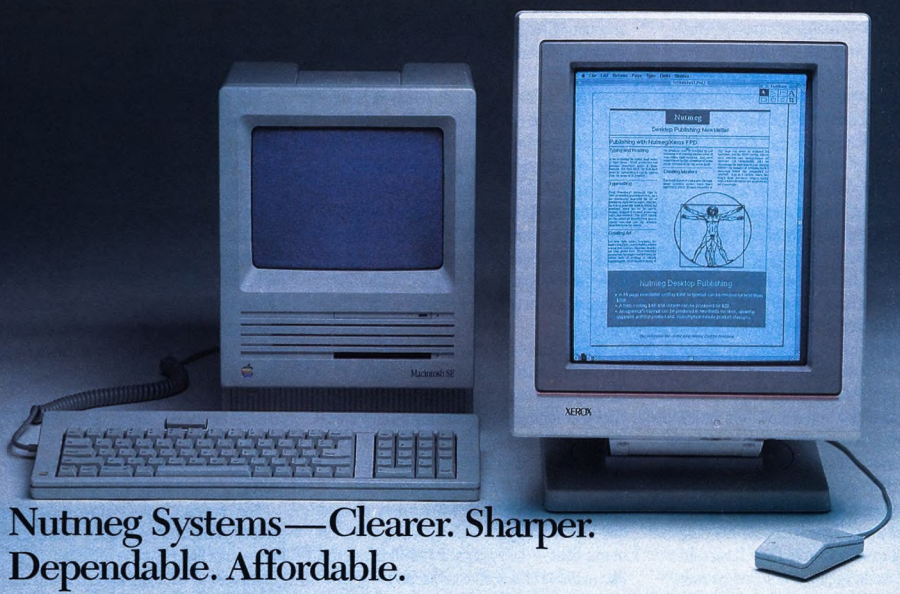
The well-designed tutorial and manual provide access to higher levels of use, like creating custom gray maps and doing more with PostScript. Technical support is not a toll-free phone call. ThunderWare's handling of upgrades, however, is cause for concern. Even after paying an extra charge for rush handling, registered owners have had to wait six weeks or longer for new software or adapters, On bulletin boards, several users complain that ThunderWare personnel are unhelpful and even rude when questioned about the delays.

Summary

Powerful as it is, ThunderScan takes too long to be practical in offices with scanning requirements. For those of us with limited budgets, high aesthetic standards and limited scanning to do, ThunderWare's little scanner can produce highly effective output. ■

Phil Inje Chang is a personal publisher, editor and writer in the San Francisco Bay area.

Clearly, the Full Page Display You'll Want to Look Into.



Nutmeg Systems—Clearer. Sharper. Dependable. Affordable.

When it comes to buying a Full Page Display for your Macintosh™ computer, the choice is clear—here's why.
Clearer. Compare our Nutmeg/Xerox® Full Page Display (FPD) to other big screens. Our images are darker, sharper, and easier to read—edge to edge and top to bottom!
Sharper. Our pixel density (90 dpi), combined with a special paper white phosphor screen, make the Nutmeg/Xerox FPD markedly sharper and easier to look at than other big screens. Other screens are 72-80 dpi and all use a harsher phosphor.
Dependable. Developed by Xerox, backed by extensive research and development, and supported by Xerox Service Centers nationwide, the Xerox FPD monitor joins a long line of respected products. Ergonomically designed, the Xerox FPD tilts and swivels to any position, facilitating maximum user comfort. Combined with the Nutmeg interface board, the Nutmeg/Xerox FPD becomes the clearly superior display.
Affordable. Clearer. Sharper. Dependable. And the final reason to choose the Nutmeg/Xerox FPD? It's the most affordable!

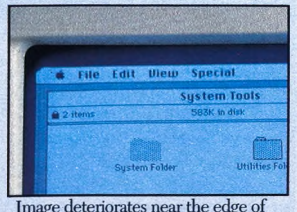


Image deteriorates near the edge of another company's FPD screen.

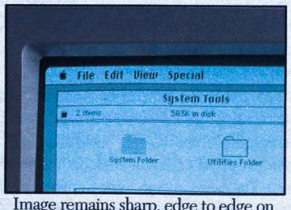


Image remains sharp, edge to edge on the Nutmeg/Xerox FPD.

Nutmeg Systems
Nutmeg Systems, Inc.
25 South Avenue
New Canaan, CT 06840
203-966-3226

Visit your authorized Apple dealer and compare. You'll see why the Nutmeg/Xerox FPD is the CLEAR CHOICE.

*Xerox is a trademark of Xerox Corporation. Macintosh is a trademark licensed to Apple Computer.

CAD on a micro becomes a Snap!

Snap! 2.0

Data Basics
P.O. Box 32
Sunset, S.C. 29685
(803) 878-7484
List price **:$695;** Snap! Translator: **$195**
Strengths: Powerful 2-D drawing capabilities; symbol library; variable measuring units; dual views; good plotter support; file compatibility with Intergraph IGDS.
Weaknesses: Experienced Mac users may need some time to adjust to an interface without an icon tool palette.

NEWELL COLOR

BY FRANK CONFORTI
Special to MacWEEK

Until not long ago the C in CAD — computer-aided design — meant mainframe or mini.

Now, increasingly, it also means micro, but many users remain loyal to the large and expensive turnkey design systems on which they have become proficient. Snap!, a two-dimensional drafting and design package from Data Basics of Sunset, S.C., is one of several recent micro products designed to appeal to such users by offering features familiar from proven programs — in this case, the popular but pricey Intergraph IGDS system.

On the whole, Data Basics has done an excellent job combining the power of the turnkey system with the graphics capabilities and interface of the Macintosh. Snap! is missing a few of Intergraph's more esoteric features. On the other hand, people accustomed to MacDraw may initially find some of the new program's procedures less intuitive.

But the net result is a sophisticated and reasonably priced tool well-suited for a variety of architectural and engineering design tasks. It has features — a symbol library, multiple layers and dual views — that give it a level of convenience and power lacking in MacDraw. And via the Snap! Translator, a utility program available at extra cost from Data Basics, it is possible to exchange files with almost complete compatibility between Snap! and the Intergraph system.

One of the first noticeable differences between Snap! and MacDraw is that the icons usually associated with drawing programs are absent from Snap! You use menu and keyboard commands instead of an icon palette to choose the tool you want to use next.

The File menu lets you open and close design files, the term used to describe Snap! and Intergraph drawings. Instead of the usual New command, however, Snap! has two commands, Create and Create Using Seed File, that immediately create files on the disk. Seed files are similar to the style sheets and "stationery pads" offered by several word-processing programs. Information such as drawing size, drawing format, title block and working units (feet and inches or miles and feet, for example) is copied from the seed file into the newly created drawing.

The File menu also includes commands to create and attach the symbol file, a library where graphic elements are stored for repeated insertion in a drawing. The symbol library can be likened to the Scrapbook, except that the whole symbol is treated as a single element when inserted in a drawing. There also is an accounting function, a handy feature used to track the amount of time spent creating each design file.

When the design file is created, the user goes to the Set menu to choose the units of measurement for the drawing. Units of measure vary among different disciplines. A mechanical designer wants to work in inches or mills, just as an architect prefers to work in feet and inches. Other important parameters dealt with under the Set menu are the line code (seven types), line weight (10 choices), active angle, active level and, on a Mac II, color.

Snap! allows placement of graphic primitives such as lines, arcs and circles either directly, with menu commands and mouse clicks, or indirectly, by entering x and y coordinates from the keyboard. Once placed, these elements may be modified in many ways, including location, orientation, scale and appearance. Drawing elements can be divided into logical groups — such as walls, doors and object lines — and assigned to different levels, like multiple sheets of clear paper. Drafting professionals will recognize levels as computerized overlay drafting.

Like the Intergraph IGDS system, Snap! lets you change parameters with a series of keyboard commands called key-ins — a feature that is not part of the standard Mac interface but can be extremely convenient. All key-ins consist of two characters, an equal sign and the data for that particular key-in. For instance, the active angle, a parameter used for certain element-modifying commands and symbol insertion, can be set at 30° using the Active Angle command under the Set menu or by the key-in AN=<30>.

Snap! opens two independent windows into the drawing, which can be used to examine two different parts of the drawing or the same section from different viewing distances (zoom scales). The user can even work from one view to another, marking the starting point for an element in one view and the end point in the other. On a Mac II, you can even put the two views on separate screens. The views are controlled through the View menu, which allows the user to zoom in or out multiple times, copy one view's parameters into the other, scroll the views around and in general accurately control what portions of the drawing Snap! is displaying.

The Draw, Mod and Geo menus

The three menus users will find themselves pulling down most often are labeled Draw, Mod and Geo. Under the Draw menu, all of the standard primitive elements are found: lines, shapes, blocks, line strings, curve strings, circles and arcs. Such elements can be input via the mouse or by using key-in commands.

Herein lies Snap!'s strength and namesake. In CAD, most drawing elements are inserted using a combination of free placement and placement with respect to other elements. A circle, for example, may be placed 3 feet, 2 inches at 30 degrees from the left of another line. With Snap!, all that is needed is to "snap" to the end of the first line and key-in DA=3:2,30. This type of element insertion, impossible in MacDraw, is a powerful and easily overlooked feature, and it's what makes Snap! so close to Intergraph's IGDS in terms of operational technique.

The Mod menu is used to modify existing elements via a series of easily understood commands. Unlike MacDraw, where selected objects can be modified by pulling on handles or backspacing, Snap! requires a specific modify command to be invoked before a change can be made. Besides self-explanatory commands like Delete, Copy and Move, there is a powerful Partial delete function that allows the user to remove part of any element. In MacDraw, a common way to achieve the same effect is to place a solid white box with no border over part of the element. Snap!'s more elegant approach — directly modifying the element — doesn't require the user to continually keep an eye out for these blank elements. Other options include various ways of rotating, scaling and mirroring selected objects.

The commands under Snap!'s Geo (for geometry) menu let you create construction lines — the lines drafters often lay down as guides prior to creating the actual object lines. Data Basics lets you extend, copy parallel and in general manipulate lines accurately. An Extend Two Lines to Int. command will modify the endpoints of two lines until they meet, an extremely accurate technique used to create snap points for further element placement.

Good fences make good groups

Snap!'s element-grouping commands, called Fence commands, allow the operator to do group operations on elements. A fence is placed around the elements to be manipulated, and the particular fence-manipulation command is invoked. The key is the flexible way elements can be moved, rotated and copied.

The program uses standard Macintosh text-editing routines and supports either raster text à la MacDraw or stroked text for use in pen plotting. Snap!'s dimension package is reasonably complete, though items like tolerancing and radial or diametric dimensions have to be placed as auxiliary text.

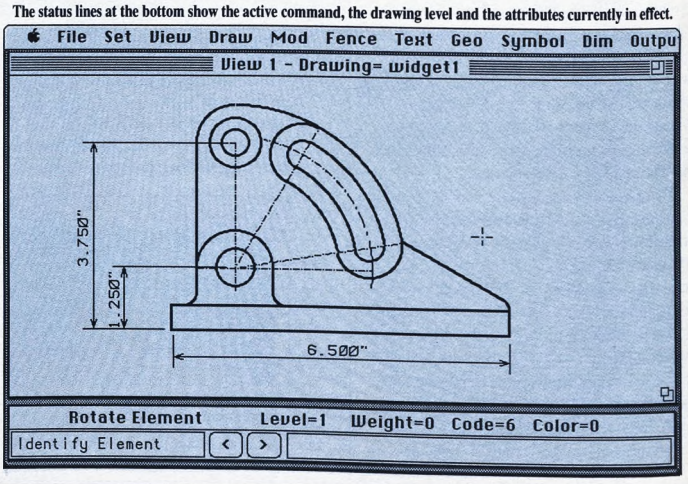
In terms of output, Snap! has a bevy of options. It really shines with pen plotter output on both Hewlett-Packard and Houston Instruments plotters. Plot scales are user definable, but a series of standard scales (1 inch equals 0.25 inch, for example) are included. Snap! takes full advantage of multiple-line styles and line weights to give the user an aesthetically pleasing drawing.

Data Basics' manual is very thorough and includes a good tutorial section that walks the user through most of Snap!'s commands. Some Mac CAD systems still adhere to the ill-conceived notion that thick, informative manuals are taboo; in this respect, Snap's manual is more IBM-like.

The index could use some refinement, though — we could find no reference there to the program's color options. In terms of user support, we have found the people at Data Basics able and willing to provide excellent assistance.

Snap! is an excellent compromise of a large CAD system's design philosophy and the Mac's superior user interface. Its resemblance to Intergraph should not deter non-Intergraph users from considering this package. On the contrary, if you need a powerful yet easy to use CAD package, you should consider Snap! ■

The status lines at the bottom show the active command, the drawing level and the attributes currently in effect.



Death and taxes

Susan Morgan of SoftView isn't afraid of either

BY CLAIR WHITMER
MacWEEK Staff

CAMARILLO, Calif. — The president of SoftView Inc. is wearing a conservative navy-blue business suit straight out of a dress-for-success manual. Her short, salt-and-pepper hair denotes pure professionalism. But in her mind, Susan Morgan is outfitted in a skydiving suit.

Morgan is the president and chief promoter of SoftView of Camarillo, Calif. She also is an aficionado of high-risk sports. In addition to sky diving, Morgan likes to ride motorcycles and hang glide.

SoftView is a company that Macintosh owners remember most easily around tax time. The company's name and the name of its No. 1 product, MacInTax, sound very soothing to lots of users frazzled by the combination of April 15 and their finances.

SoftView started providing this kind of comfort when Susan Morgan and her husband, Michael, quit their jobs in the aerospace industry and launched into the newborn Macintosh market with their stand-alone tax preparation program.

For a woman who had already survived more than 100 sky jumps, it probably didn't seem like such a perilous thing to do. In fact, she said the "Wild West" atmosphere of that era of the personal computer industry drew her to it like a magnet.

"To be an entrepreneur, that's a risk. You have to believe that somehow you're going to find where the next dollar will come from. Just like when you jump out of an airplane, you have to believe the chute is going to open.

"You have to really like the feeling of your body flinging through the air," Susan said, with a laugh that implies she definitely enjoys that feeling.

The couple got involved with the Macintosh in 1984 when Susan became pregnant with their second child. Maternity benefit checks were mistakenly issued by both her employer and the insurance company, leaving the Morgans with $4,000 extra.

By the time the company discovered the error, a Mac had found its way from a computer retailer into the couple's home. (Susan hastens to add that she later paid back the "non-interest loan.") Once the computer was in their hands, it didn't take the Morgans long to start generating a long list of "Mac ideas."

"This thing was selling like hot cakes, and there wasn't any software for it. And that was an opportunity as far as I was concerned," she said.

Both of the Morgans were well-qualified hackers. They met when Susan joined a programming team for avionics software at Technology Service Corp. in Santa Monica, Calif.

Michael took a leave of absence from work to develop the idea that eventually became MacInTax. When the time came to return to his job, the program wasn't finished and Michael had almost given up on the project. But then he showed his wife what he had done so far.

"I looked at it and I said to Michael, 'This is way too good. You're not going back to work. I'll get the money. I don't know where, I don't know how, but I will,'" Susan said.

That was the beginning of SoftView.

Now Susan says proudly that her company owns the Mac market in stand-alone tax programs, with an expected $3 million to $4 million in sales for next year.

SoftView also is developing a generic forms application, the details of which are still under wraps. But, Susan said with characteristic pride, "it's revolutionary."

The confidence that leads her to make such statements also prompted her to take a public stand recently against what she termed unethical business practices by Claris Corp. executives.

She charged that the business and technical plans she had discussed confidentially with Apple executives were taken with them when they joined Claris, Apple's software spinoff. Now Claris plans to compete directly with SoftView in the electronic forms market, Susan said.

She said other companies have had similar concerns but have avoided being vocal because they fear repercussions from Apple. "I know my way around pretty well, so I'm not afraid," she said.

In the future, Susan plans to learn how to fly a plane. Until then, she seems to get plenty of thrills out of piloting her company. ■

CAMILLE GOOD

"Just like when you jump out of an airplane, you have to believe the chute is going to open."

SUSAN MORGAN, SoftView Inc.

Solutions' Evslin took the long road to the Mac

BY EMILY BROWER
MacWEEK Staff

MONTPELIER, Vt. — Software publishing is full of politics, but there are very few politicians who also publish software.

In fact, Tom Evslin, president and founder of Macintosh software developer Solutions Inc. of Montpelier, Vt., may be the only hacker who has held office as a political appointee.

Tom Evslin moved from mainframes to micros via politics.

CHAZZ SUTPHEN

Evslin served one term as secretary of transportation under Vermont's Gov. Richard Snelling.

"If you want to, it's easy to affect politics in Vermont," Evslin said with a smile.

Evslin's involvement with local politics began after moving himself and his company to Montpelier from New York City in 1971. An avid skier, his original motivation for relocation was to be closer to the ski slopes.

While continuing to write mainframe applications for banks and insurance companies, Evslin championed a 1977 federal lawsuit for the town of Worcester, Mass. The town had been overlooked for a local public works program sponsored by the federal government and its application for a grant had been turned down because of a computer error that Evslin uncovered.

Evslin helped win the case with evidence from federal computer tapes accessed through the Freedom of Information Act and earned himself a reputation as a champion of local causes. When Gov. Snelling began looking for a secretary of transportation in 1981, he wanted someone who could talk numbers with the engineers, red tape with the federal government and politics with the politicians. Evslin was the likely choice.

"When I accepted the appointment," said Evslin, "I had no idea how different the experience would be from my previous work. All of a sudden I was responsible for the regulation of nine airports, two railroads, 1,200 employees, 3,000 miles of state road and no computers."

Ironically, it was this two-year leave from programming that redirected Evslin's career from mainframe programming to microcomputers. Using money allocated for typewriters, Evslin purchased several Tandy Model IIs to help untangle the complicated schedules and budgets of the transportation department.

"As a user, I saw that all the action and excitement of the future was in micros," Evslin said.

When his term was up in 1982, Evslin went back to Solutions and began writing utilities for VisiCalc that incorporated data from the Dow Jones News Service. The products were good enough to draw the attention of Dow Jones, which approached Evslin with proposals for several new products. Among them was an opportunity to write a program for a new computer from Apple called the Macintosh.

"This was back in early '83, and not many people were programming for this new computer. Bill Dunn at Dow Jones asked me to write some software for the Mac and I said 'yes,' not knowing how difficult it would be," Evslin said.

Solutions became more involved in Macintosh development over the next few years. Experiments with combining Macintosh graphics and communications software resulted in the creation of Glue, an application that smooths electronic transmission of non-text and graphic documents. Glue also allows users to view and print documents created with applications they don't have. The program was licensed to Dow Jones as an integral part of its interactive communications package, Desktop Express.

Evslin said he plans to continue developing communications programs for the Macintosh. His next product, MacFax, is a background facsimile application that works with MultiFinder and Apple's fax modem, AppleFax. The close ties that he has developed with Apple show that Evslin is still adept at the politics of software development. With Glue, SuperGlue and MacFax, he is well on his way to winning a large share of the Macintosh communications market. ■

LIGHTSPEED

Continued from Page 1

"This (24-bit color) will make our system much more attractive for professional graphic artists and advertising agencies," said Tony Gilmore, Lightspeed's national sales manager..

Like MacDraw, the Color Page Layout software is an object-based system that allows the user to create rectangles, boxes and circles. Multiple color images can be scanned in as individual files and layered. Snap-to grids and rulers allow designing to exact specifications of, for example, advertisements or magazine pages. Scanned-in images can be cropped, enlarged and reduced to fit a page design.

The system was originally a port of the company's Sun workstation-based system when shown last March at the Seybold Publishing Conference in Beverly Hills, Calif.

Since then, the Color Page Layout software has gone through a major rewrite, said Jim Stoneham, one of the system's developers. "This is a color page-layout system specifically for the Mac II — not a port of the software that runs on the Sun workstation," he said.

An available turnkey system, priced at about $17,000, includes Lightspeed's Color Page Layout software, a Mac II with 5 Mbytes of memory, a 40-Mbyte hard disk and a SuperMac Spectrum color monitor with resolution of 1,024 by 1,024 pixels. The system supports 8 bits of color for simultaneous display of 256 colors from a palette of 16.7 million colors.

An optional color scanner with 300 dot-per-inch (dpi) resolution from Howtek of Hudson, N.H., and a 300-dpi color thermal transfer printer from Mitsubishi, of Torrance, Calif., are available for $9,500 and $10,000, respectively.

"When QuickDraw support is available for 24-bit color, we will support it. Because we are hardware-independent, we will be able to support a number of color frame buffers for the Mac II," Gilmore said.

Eight Bitstream fonts, four Dutch (similar to Times Roman) and four Swiss (similar to Helvetica) come with the Color Page Layout software. Fonts from Cambridge, Mass.-based Bitstream Inc.'s entire library are available. ■

FALLON

Continued from Page 1

scheduled to be released by the end of the year for less than $500 each, were a good idea that came late.

"Why use [Acknowledge and Acknowledge Pro] when some of us have comparable systems?" asked Russell Chatham, division director at Federal Express in Memphis, Tenn., which since June has used AppleLine 3270 File Transfer software on 400 Macs for packet data file transfer, spreadsheets and automated databases.

In June, Apple officials confirmed reports that it was developing Acknowledge and Acknowledge Pro to eliminate the need for Mac users to learn mainframe commands.

Users like Seafirst Bank in Seattle, however, already had developed in-house connections that made Acknowledge and Acknowledge Pro obsolete.

Seafirst has connected approximately 2,600 Macs to its mainframes with AppleLine, 3270 gateway software from Apple, in-house communications programs and a communications controller from Digital Communications Associates of Alpharetta, Ga., according to Seafirst.

But the links are application specific, users assert. Steve Keese, a systems strategy consultant with John Hancock Co. of Boston, said he is looking forward to a single solution that can be configured for linking Macs to any mainframe application or on-line service.

John DuBois, senior technical adviser for Seafirst, said he talked to Apple about the project in August, but Seafirst wasn't interested. ■

ROM

Continued from Page 1

National Semiconductor recently announced a 16-Mbyte board for the Mac II, but because of problems in the Mac II's handling of NuBus cards, the board has been inoperative. One graphics board developer said, "The bug was found by National Semi when the company ran into address (memory) problems with its new 16-Mbyte (memory expansion) board."

The technical memo Apple circulated last month reads: "A problem has been recognized in the Macintosh II's handling of NuBus cards.

"Simply stated, the problem is that the Slot Manager runs in 24-bit mode when it should be running in 32-bit mode. This causes the Slot Manager to ignore cards which need more than 1 Mbyte of address space."

Dealers will automatically install the new ROMs whenever a Mac II is taken in for service or upgrade, the memo said. The change in the Mac II ROM will allow the Slot Manager to run in 32-bit mode.

With the upgraded ROMs, all cards requiring more than 1 Mbyte of address space will be "correctly recognized and initialized during the boot process," allowing the Mac II to exploit memory boards such as the 16-Mbyte National Semiconductor memory and graphics video boards in development from RasterOps of Cupertino, Calif.

Apple is writing a small application program for developers to ship to customers with their Mac II boards so customers can check the release date and version of their ROM.

Apple has advised developers to ship the program with their Mac II boards and "let [customers] know which ROM date would be needed to run your card," Apple's memo said.

The technical memo also states that part of the Mac II ROM "will be patched without rebuilding the entire ROM — meaning no other section of the ROM will be affected in any other way. This [patch] doesn't change or affect the ROM's contents in any way." ■

INTERMAIL

Continued from Page 1

paper memos and phone messages and allows efficient transfer of documents between users.

"With InterMail, we believe we have acquired the finest electronic-mail program for the Mac. Its open architecture and design will allow us to enhance the program with the connectivity solutions in the Mac environment," said Jon Shirley, president and chief operating officer of Microsoft of Redmond, Wash.

InterMail, which will be renamed Microsoft Mail in early December, is the first product released by Microsoft's newly formed Integrated Office Systems Group.

The group plans to develop enhancements and new products for InterMail, according to John Morey, group products manager for Integrated Office Systems.

"Microsoft has a desire to be in the PC marketplace with an electronic-mail product for the majority of users. We would like to develop a PC mail product that will run on popular networks like AppleLink," Morey said.

The acquisition has strategic significance for Microsoft, according to Rick Sherlund, an analyst at Goldman Sachs, an investment bank in New York. "Microsoft underscores its commitment to the Apple market with this purchase. Now that it has electronic mail for the Macintosh, you can expect Microsoft to fill in the missing piece for the PC," he said.

Nick Holt, one of InterMail's original developers, and Internet have signed separate contracts to work on new product developments with Microsoft. Contrary to published reports, InterMail was developed by Internet, not by Top Express, the British company for which Holt once worked.

"The net effect is that the same team that spawned InterMail will help Microsoft make InterMail an industry standard. Microsoft has picked up all released and unreleased technology from us," said Steve Ullman, president and founder of Internet.

"Microsoft will be a major player, if not the major player, in office automation for Mac and PC markets. With InterMail, they will stay a generation ahead of all other electronic-mail products. Microsoft's money and resources can accomplish in nine months what would have taken us two to two and one-half years to complete," said Ullman.

Internet will continue to design and market network systems and vertical market software for the Mac. The company's products include a turnkey, multi-user networked system called Legal Aide for legal office management and billing, and Lifeline, a blood donor management system. ■

APPLE

Continued from Page 1

chairman, previously told analysts the company would likely earn between $725 million and $750 million.

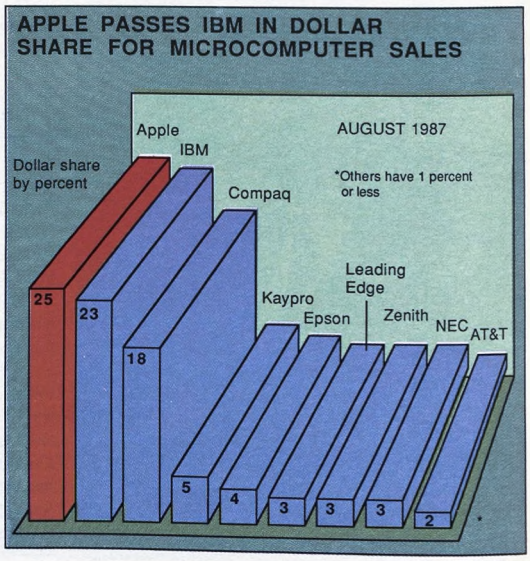
For the 1987 fiscal year ended Sept. 30, Apple shattered fiscal 1986 sales marks by 40 percent. For the year, Apple's sales were reported at $2.66 billion, up from $1.9 billion a year ago. Apple earnings were 54 cents per share in the fourth quarter, compared with 25 cents per share a year ago. For the full year, Apple earned $1.65 per share, compared with $1.20 a year ago.

Apple is on a tremendous roll, Sculley said in a statement last week. "Our new products are shipping in record numbers. The Macintosh family of products is shipping at its highest level ever," he said.

There is more good news for Apple to crow about. According to InfoCorp, a Cupertino, Calif., market research firm, Apple surpassed IBM Corp. of Armonk, N.Y., in microcomputer market share in August — 25 percent to 23 percent, respectively. Through August 1987, however, IBM enjoyed a narrow lead of 27 percent to 25 percent — which may not hold up through the remainder of the calendar year.

"That's very impressive for a company that two years ago people thought would go the way of the dinosaur," said analyst Peter Rogers of Mabon Nugent, a New York investment bank. "I think we'll continue to see solid growth from Apple, from 30 percent to 35 percent in 1988."

Rogers predicts Apple will earn $3.5 billion in fiscal 1988, which began Oct. 1. Apple did not release any fiscal 1988 predictions. ■



Source: InfoCorp

Join the revolution...

TSI/Novy 68020 Accelerators for the 512E, Plus and SE Macs.

- No motherboard modification.
- 30-minute installation, user upgradable..
- Available in 12, 16, 20 and 24 Mhz.
- 1- or 4- Mbyte RAM capacity.
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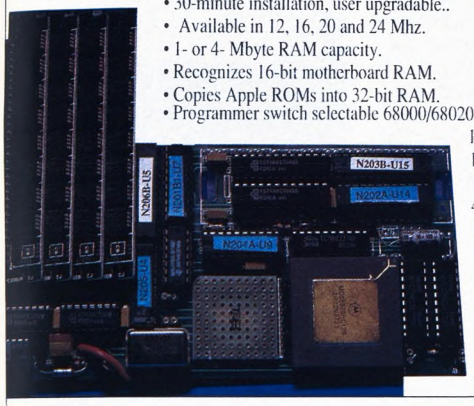

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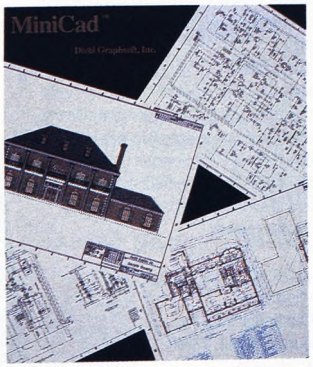

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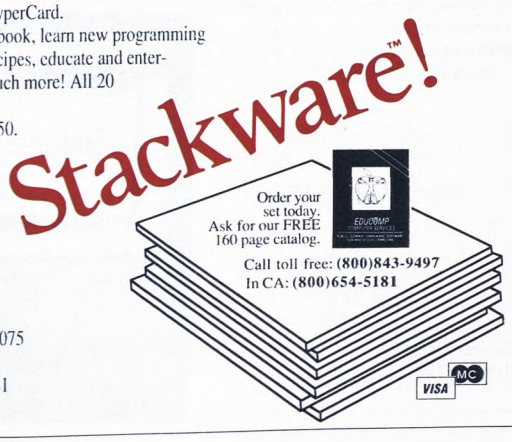

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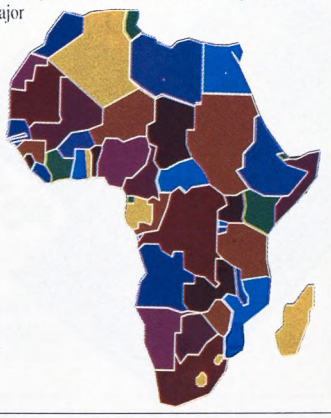

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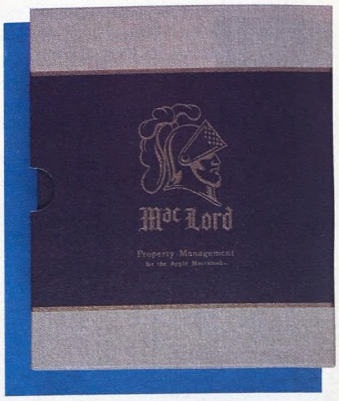

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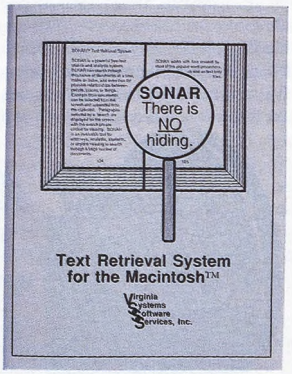

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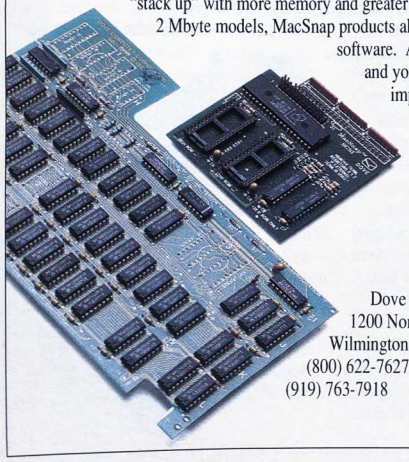

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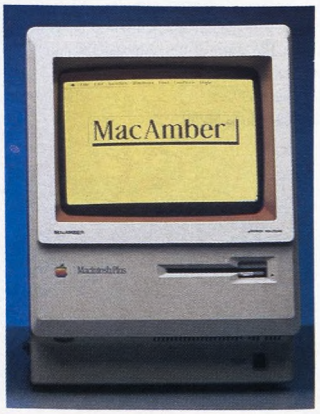

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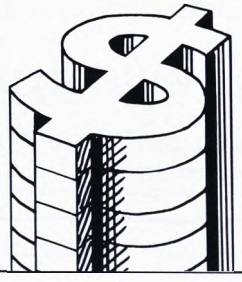

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MAC THE KNIFE

An apple for the teacher, or grade inflation department: At the announcement of the Borland-Apple comarketing deal, Philippe Kahn used an academic record keeping example to demo Reflex Plus. He entered straight A's for himself. For "student" John Sculley, who was on hand to bless Borland's reborn interest in the Mac, Philippe entered A+. Now that's really Apple polishing.

Microsoft has been full of surprises lately. Go down to your local stationers and ask for a copy of the 1988 edition of the "Microsoft Computer Desk Reference & Appointment Calendar." You know the one. It's got the usual international time chart and currency conversion tables in addition to the pages for noting the passing of your life. But the real fun is at the end of the book. That's where you'll find command references for all the popular software, everything from DisplayWrite to XyWrite, from dBASE to RBASE, from MS-DOS to Xenix. (They don't call this The Software Pirate's Bible for nothing).

The interest to Mac fanatics here is that it includes a reference chart for two versions of Excel: the one for the PC and the one that Microsoft promised for release later this year. Not the announced 1.05, but the 2.0 that will have parity with the PC version. Vapor docs?

Redmond has at least one other surprise in store. Word is that Microsoft Write, a competitor to MacWrite, is on its way, perhaps even in time for Santa.

That other big Northwest employer, Tektronix, has been taking its 4693D color printer (snappy name, no?) on the road lately. Last week Tektronix was making its pitch to corporate types in the Northeast. One Knife informer was impressed with the unit, but he was even more intrigued by the heavy hints that a PostScript version is in the works. With so many Mac addicts within Tektronix, who could doubt it? Another source says that one of the PostScript clone developers could be the big winner in this deal. Seems Tektronix wants to come out with a model that's price competitive with the QMS offering, and paying a lower license fee for the PostScript interpreter is the first step in reaching that goal.

Silicon Beach also has a new offering in the works: software, code name Focus, to do gray-scale image processing. Like lots of other folks with products in development, Silicon Beach is aiming for a January San Francisco Mac Expo release date. The Knife also hears that Focus has a "killer" feature that could be a product in its own right.

A Kaleidoscope of applications

Aldus' Kaleidoscope (formerly Masterpiece) is finally in the beta-test phase. If you're looking for Illustrator, MacDraw and MacPaint all in one package, this one may be worth waiting for.

AST insiders were recently overheard reacting to Quadram's announced plan for a Mac II '386 card. "Good luck." Seems they had quite a time getting the '286 to work, and that was with the help of Phoenix Technologies, whom they have under exclusive contract for the project. Without Phoenix, Quadram may have a tough row to hoe. As for AST, it's spending all its energies trying to squeeze Mac286 onto just one card.

The Mac was in the spotlight at last week's Software Publishers Association conference in Cambridge. Ashton-Tate's chief, Ed Esber, surprised the assembled developers by predicting that the Macintosh "could become the dominant corporate platform."

Lotus' head salesman, Steve Crummey, endured some hoots when he mentioned the company's new integrated package, Modern Jazz. "We spent a lot of money advertising the Jazz name, and we wanted to take advantage of that," he explained.

Appearing on a Macintosh panel discussion, Claris' Bill Campbell avoided direct questions about new products and acquisitions. His biggest revelation was that Claris' employees are now on a separate payroll from Apple's. Except for product connections, the separation will be complete by January, he said. Then Campbell departed for Providence, R.I., home base of a certain forms software developer.

QuickRacing, or all's well that findswell: While ACIUS has recently become famous for its model-racing expertise (ACIUS will probably send you a souvenir photo if you ask nicely), at least one programmer at Working Software works out with real Formula 5 racing iron. No wonder its next product is called Quick Letter.

* * *

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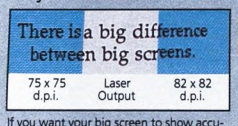

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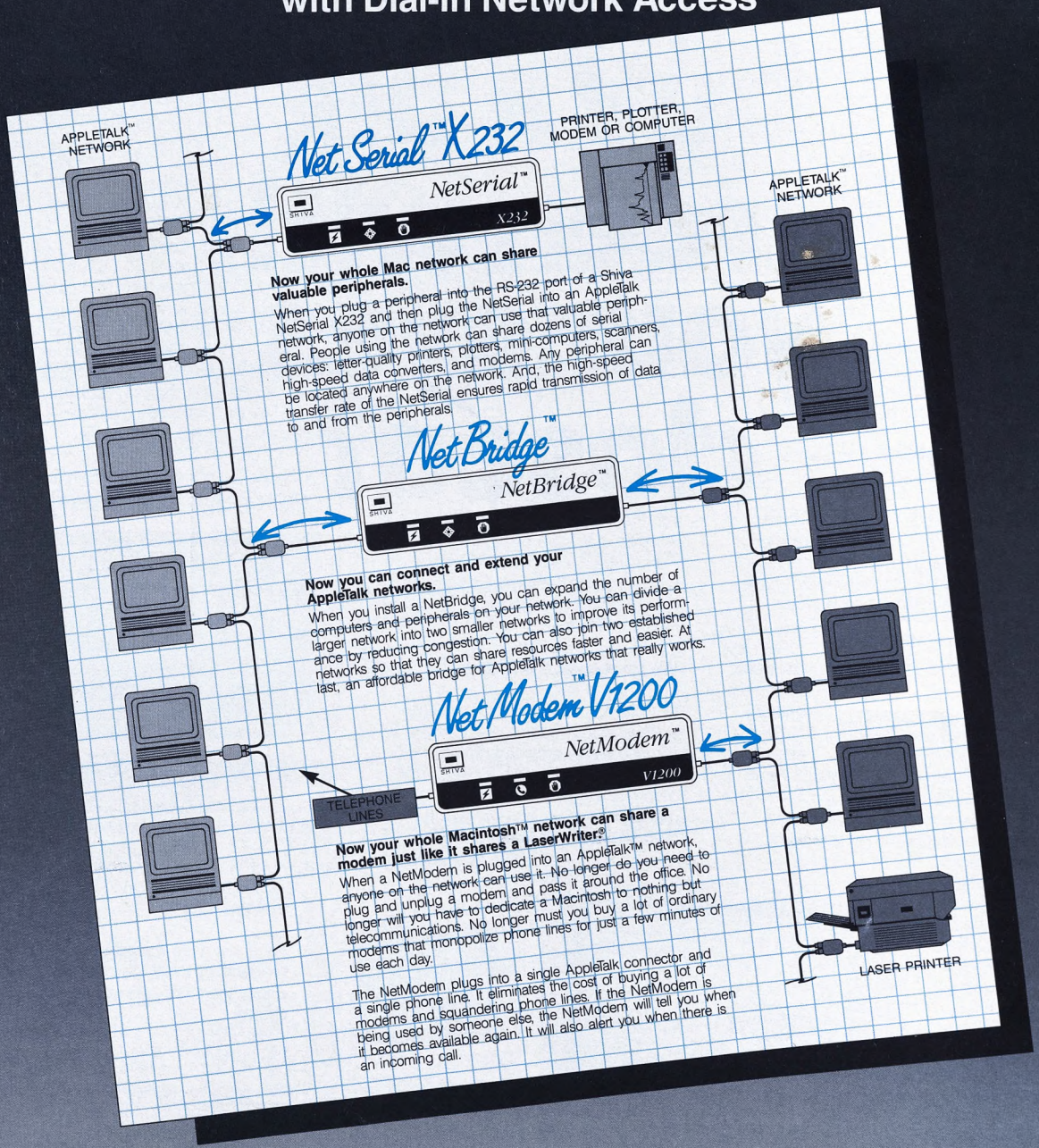
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